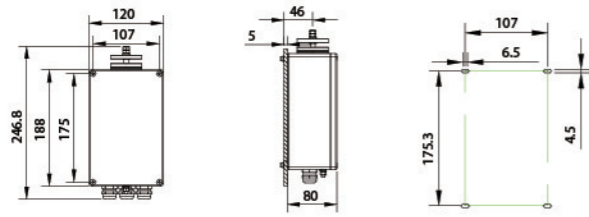
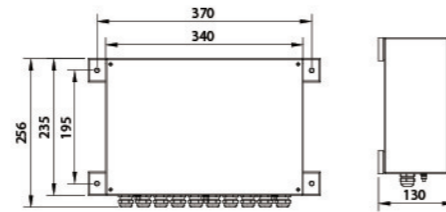


[Dimensional Drawings]

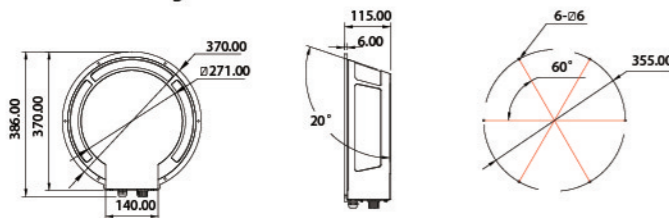
Rudder Angle Transmission Unit
HLD-RTU100 4.0kg



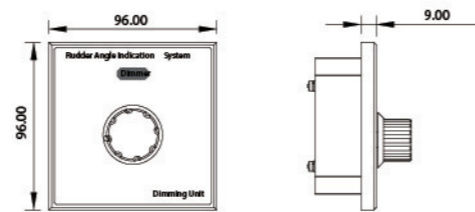
Connection and Distribution Unit
HLD-CDU100 8.0kg



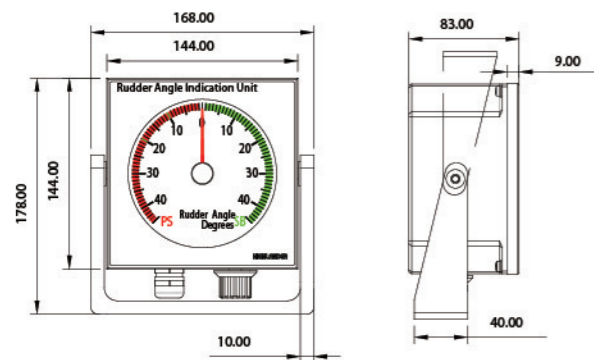
Three Face Rudder Angle Indicator
HLD-TRU100 6.0kg



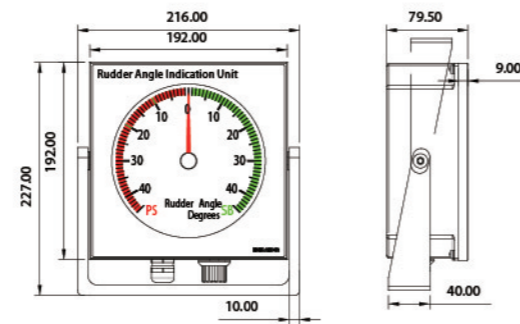
Dimming Unit
HLD-DMU100 0.5kg



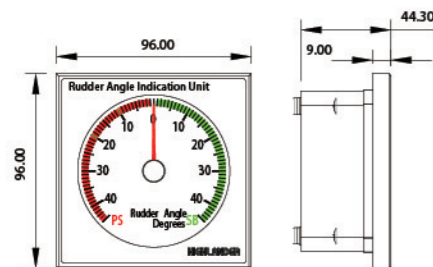
Wall 144 Rudder Angle Indicator Unit
HLD-WRU100-144 3.0kg



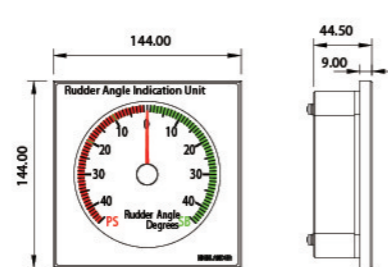
Wall 192 Rudder Angle Indicator Unit
HLD-WRU100-192 4.0kg



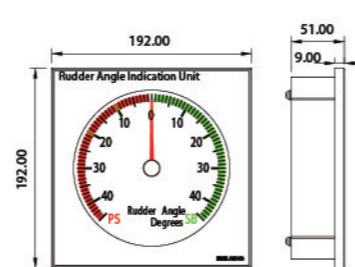
Panel 96 Rudder Angle Indicator Unit
HLD-PRU100-96 0.5kg



Panel 144 Rudder Angle Indicator Unit
HLD-PRU100-144 0.8kg



Panel 192 Rudder Angle Indicator Unit
HLD-PRU100-192 1.0kg



China Classification Society (CCS) type approval
EU MED B + D Type Approval
Russian Classification Society (RS) Type Approval
Vietnam Classification Society (VR) type approval

RAIS

RUDDER ANGLE INDICATION SYSTEM

HLD-RAIS 100



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The Rudder Angle Transmitter is mechanically linked and synchronised to the rudder stock, to simultaneously transmit the rudder angle information to the connection unit. The connection unit process the rudder angle value and transmits rudder angle value to all connection indicators. The transmission is achieved using with the latest CAN bus technology that allows self-synchronization of the indicators and ease of calibration of the system. An unlimited number of indicators can be connected to the system. The system also provides outputs in IEC 61162 format for external equipment.

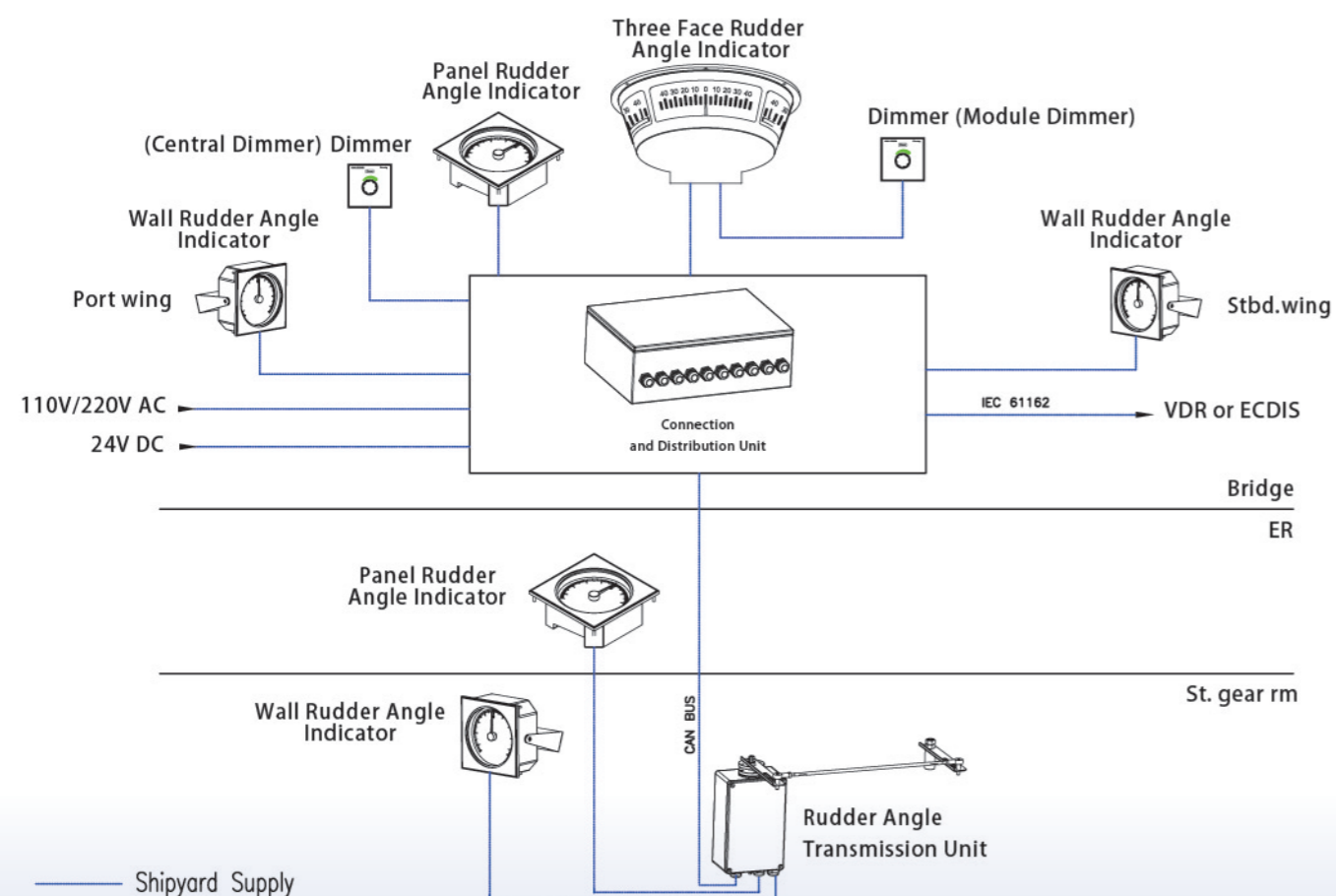
[Features]

- Fully digital design, Standard IEC61162 interface between modules for high reliability
- Flexible & scalable configuration, suitable for all types of vessels such as yacht, fishing boat, working boat, bulk and container vessel
- High precision indication, fast response
- Day and Night illumination mode
- Scale markings style can be customized according to requirements
- Easy installation and simple calibration
- Built-in dimming, Remote dimming and centralized dimming
- Provides Rudder Position information and system status to VDR or other equipment
- Operates on main power and emergency power with automatic changeover
- Visual alarm indication, Alarm output to external alarm system
- Complies with IMO resolution A.1021

[System Configuration]

HLD-RAIS100 Rudder Angle Indication System comprises: Rudder Angle Transmission Unit, Connection and Distribution Unit, Three Face Rudder Angle Indicator, Wall-mounted type Rudder Angle Indicator, Flush-mounting type Rudder Angle Indicator and Dimmer.

Standard configuration of the HLD-RAIS100 RUDDER ANGLE INDICATION SYSTEM as shown in figure.



[Technical Specifications]

System Specifications

Performance Standards	According to ISO20673-2007, IMO Resolution A.1021, MSC64 (67)
EMC/EMI	According to IEC 60945 ed4.0 (2002)
Power Supply	110/220VAC ,50/60Hz and 24VDC; Consumption < 30W
Language	English
Interface	8x Output for Indicators 2x IEC 61162 for VDR, etc 1x ON/OFF Volt-free Alarm contact for system failure
Scale ranges	±35, ±45 or ±65 degrees, Division scale: 1 degree
Accuracy	Less than 0.5 degree error
Damping time	< 3 seconds

Physical Specifications

Name	Type	Size(L×W×H)/mm	Weight (kg)	Installation	Protection
Rudder Angle Transmission Unit	HLD-RTU100	188×120×80	4	Wall mounting	IP56
Connection and Distribution Unit	HLD-CDU100	340×235×120	8	Flat mounting	IP22
Three Face Rudder Angle Indicator	HLD-TRU100	φ370×115	6	Top mounting	IP22
Rudder Angle Indicator	HLD-WRU100-144	144×144	3	Wall mounting	IP56
	HLD-WRU100-192	192×192	4		
Rudder Angle Indicator	HLD-PRU100-72	72×72	0.5	Flush mounting	IP22
	HLD-PRU100-96	96×96	0.5		
	HLD-PRU100-144	144×144	0.8		
	HLD-PRU100-192	192×192	1		
Dimmer	HLD-DMU100	96×96	0.5	Flush mounting	IP22