



# **R5 SUPREME NAV** HIGH PERFORMANCE POSITIONING NOW WITH COMBINED GPS AND GLONASS

The IMO-compliant Saab Navigation systems have been the top choise for professional mariners for close to a decade. Saab offers the R5 generation of type approved GNSS and DGNSS Navigation solutions, either as stand-alone Systems or as an addition to the Saab R5 SUPREME AIS system. The R5 SUPREME NAV products are self-monitoring and extremely user friendly. The R5 SUPREME NAV system utilises the highly versatile R5 CDU and, with an option of R4 Sensors and antennas, it represents one of the most flexible navigation systems on the market.

## R5 SUPREME SYSTEM in use

The large colour touch-screen display and intuitive graphical user interface makes operation both visually appealing and easy. The multitude of interfaces make the system highly appropriate for integration into modern networked bridge solutions. The network interface may also be used to connect several systems in redundant configuration or to add additional passive displays.

#### **FEATURES**

- GPS and GLONASS support
- IALA Beacon receiver option
- RAIM functionality, alerting when position accuracy is below user set limit
- 7" high contrast colour touch LCD Touch, Keypad or USB keyboard
- control
  Displays: Latitude, Longitude, SOG, COG, HDG, ROT, XTE, RAIM level and much more
- Capability for handling and storing up to 4,000 individually named waypoints and up to 128 different routes
- Man Over Board (MOB) and Event Mark functionality
- Two trip log counters with indication of average speed and accumulated time during motion
- Scheduled Alerts, user-configurable time alarms and time to ETA alarms
- Flexible redundant and/or passive display configurations
- Display of tidal port information



### **TECHNICAL SPECIFICATION**

#### GENERAL

Waypoints:	4000	
Routes:	128 (max 512 waypoints in each route)	
Functions:	Support for additional read only displays and redundant systems.	
Integrity:	RAIM and Heartbeat Monitoring	
Power supply:	Sensor; 12/24 VDC	
	CDU; 12/24 VDC	
Power Consumption:	Sensor:	2.0 W (GPS) 2.7 W (DGPS)
	Display	13 W ິ 🤺

#### **GNSS RECEIVER**

270 channel combined L1 GPS and L1 GLONASS		
DGNSS:	SBAS, externally input RTCM-104 or Beacon option	
Update rate:	1 Hz default, 5 Hz max	
Position accuracy:	GPS*; 3m, DGPS** 1m (2D RMS)	
Cold start:	1 min typical	
Reaquisition:	<1s	

#### IALA BEACON RECEIVER ADDON (DGNSS Version)

Dual receiver:	Manual or Automatic tuning
Frequency:	283.5 to 325.0 kHz
MSK Bit Rates:	0, 100, 200 bps
Cold Start Time:	< 1 minute typical
Reacquisition:	< 2 seconds typical
Sensitivity:	25 $\mu\text{V/m}$ for 6 dB SNR @ 200 bps

#### **APPLICABLE STANDARDS**

IMO Resolution MSC.112(73(	IE
IMO Resolution MSC. 113(73)	IE
IMO Resolution MSC.114(73)	IE
IMO Resolution MSC.115(73)	IE
IMO Resolution MSC.191(79)	IE
IMO Resolution A.694(17))	IE

IEC 61108-1 Ed. 2.0 IEC 61108-2 Ed. 1.0 IEC 61108-4 Ed. 4.0 IEC 60945 Ed. 4.0 IEC 61162-1 Ed. 4.0 IEC 62288 Ed. 1.0

#### DIMENSIONS

Control & Display Unit:	255x140x84 mm / 1.6 kg
Control & Display Unit (inc. gimbal mount):	295x170x84 mm / 1.8 kg
Navigation Sensor:	128x39x137 mm / 0.5 kg

#### CABLES

Cables used without R5 NAV Junction Box:
R5 Power Cable
R5 Signal Cable DSUB-Open
R4 NAV Sensor Cable
Cables used with R5 NAV Junction Box:
R5 Power Cable
R5 Signal Cable DSUB-DSUB
R5 NAV Sensor Cable
Other Cables:
R5 Ethernet Cable

#### ELECTRICAL INTERFACES (CDU + SENSOR)

Ethernet 10/100 Mbit (LWE IEC 61162-450) 3 RS-422 I/O (User configurable) NMEA/IEC 61162-1 Ed. 4 1 RS-422 Output (NMEA/IEC61162-4 Ed.4) only 3 Digital In, 3 Digital Out USB Host 2.0 SDHC Reader Speed log output Alarm Binary Out Port Alarm Acknowledge Binary Port

#### **ENVIRONMENTAL DATA**

Al:

Output

Binary Ports

Log

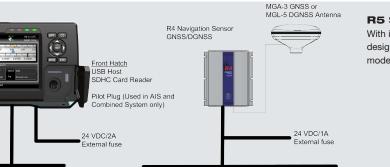
AI

ACK

 IEC 60945 (Protected)

 Operation temperature:
 -15 °C to +55 °C

 Storage temperature:
 -30°C to +80°C



Systen. Port

#### **R5 SUPREME NAV SYSTEM**

With its multitude of interfaces the system is designed and very suitable for integration into modern networked bridge solutions.

Specifications subject to change without notice

 $U_{2}$ 

Port 3

Use

Port 4

RS-422 Ports

R4

Sensor

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User Port 2

Port 1

RS-422 Ports

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