



Saab's IMO-compliant navigation systems have been the top choice for professional mariners for almost two decades. The newly type approved **R6 NAV** with its proven navigation sensors is a reliable, flexible, high performing system distinguished by unique features not available in any other system on the market.

### Ease of use

The R6 NAV system is self-monitoring and extremely user friendly. It utilizes a highly versatile CDU (Control and Display Unit) and, with options of sensor configurations and antennas, it represents one of the most flexible systems on the market. The R6 NAV is intuitive and easy to operate and designed to be a tool for daily work. Its CDU features a fast modern graphical user interface with a sunlight-readable 7-inch touch display providing accurate colours at any viewing angle. The display has a resolution of 1024x600 pixels in more than 16M colours. The CDU also features an interface for central bridge equipment dimming.

All information is easy to access through a GUI implementation that reminds of a modern smartphone.

### Multi purpose display

The R6 CDU shares its display with our type approved R6 Supreme AIS/VDES transponder to minimize the number of screens on the bridge and lower the cost for equipment and installation.

# **Future proof**

The R6 NAV system incorporates the new Bridge Alarm Management (BAM) standard as well as dual LAN interfaces (IEC 61162-450) for efficient network integration into bridge systems.

### Simple installation

The R6 NAV system can easily be integrated with other onboard systems such as ECDIS, radar or other display solutions using traditional NMEA serial communication or network interface. Dual network interfaces in both the sensor and CDU makes it simple to install on redundant bridge networks.

### **High performance**

The R6 NAV gives outstanding position performance in either GNSS, DGNSS or RTK mode.. It provides access to centimeter level navigation with RTK data from either external input or L-Band satellite, offering unparalleled performance in the familiar R6 NAV format.

The R6 NAV system is offered in the following configurations:

- R6 NAV GNSS System
- R6 NAV DGNSS System
- R6 NAV PRO System
- R6 NAV PRO RTK System



#### Features

- Market leading GNSS/DGNSS performance
- Dual 61162-450 networks interfaces for easy integration and redundancy
- Dual-use CDU can combine functionality with R6 Supreme AIS/VDES system
- 1PPS timing output port
- CDU with waterproof front for exposed panel mount installations
- Up to 4000 waypoints and 128 routes with maximum 128 waypoints per route
- · Integrity monitoring by RAIM and Heartbeat

## **Technical specification**

#### Dimensions/Weight

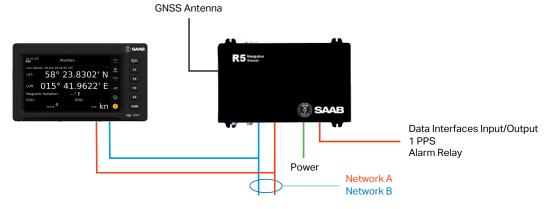
| 0                          |                                 |
|----------------------------|---------------------------------|
| R5 Navigation Sensor:      | 261x53x177 mm / 1900 g          |
| R6 CDU:                    | 220x125x45 mm / 1500 g          |
|                            |                                 |
| Interfaces                 |                                 |
| IEC 61162-1/2              | 8+1 IEC 61162-1/2 - Output      |
|                            | 5+1 IEC 61162-1/2 - Input       |
| LAN                        | 2x2 IEC 61162-450 Ethernet RJ45 |
| Alertrelay                 | 0.1-5A, 30VDC, 150W             |
|                            |                                 |
| (D)GNSS Receiver           |                                 |
| GNSS/DGNSS approvals:      | 61108-1,61108-4                 |
| Supported systems:         | GPS/GLONASS/ BeiDou /GALILEO    |
| Differential modes:        | SBAS/IALA Beacon/RTCM-104       |
| Sensitivity:               | -142 dBm                        |
| Channels:                  | 800+                            |
| Update rate:               | Up to 10 Hz                     |
| Accuracy* (RMS 67% / 95%): | Uncorrected: 1.2 m / 2.5 m      |
|                            | SBAS (WAAS): 0.3 m / 0.6 m      |
| Timing (1PPS) accuracy:    | 20 ns                           |
| Cold start:                | 1 min typical                   |
|                            |                                 |

\* Accuracy depends on multipath environment, number of satellites in view, satellite geometry baseline length (for local services) and ionospheric activity.

### Options

- Integrated IALA Beacon receiver
- Multi frequency operation
- Increased multi-path resilience
- RTK support license option
- Centimetre level accuracy
- · Satellite-based correction subscription service

| Dual receiver:                | Manual or Automatic   |
|-------------------------------|---|
| Frequency:                    | 283.5 to 325.0 kHz  |
| MSK Bit Rates:                | 50, 100, 200 bps  |
| Cold Start Time:              | < 1 minute typical  |
| Reacquisition:                | < 2 seconds typical   |
| Sensitivity:                  | 25 μV/m for 6 dB SNR @ 200 bps                              |
| Environmental data            |   |
| R5 Navigation Sensor:         | IEC 60945 Protected   |
| R6 Supreme CDU:               | IEC 60945 Protected   |
|                               |   |
| Power input                   |   |
| Input voltage                 | 12-24 VDC Nominal   |
| Power consumption             |   |
| R5 Navigation Sensor:         | 8 Watts   |
| R6 CDU:                       | 5 Watts   |
| GNSS Antenna interface        | 50 Ohm (TNC), 5 VDC   |
|                               | 30 01111(1110), 3 VDC                                       |
| Bridge alert management       | IEC 62923-1/-2  |
| R6 NAV PRO additions          |   |
| License options:              | Multi frequency RTK   |
|                               | (L1,L2,L5,G1,G2,E1,E5,B1,B2)                                |
|                               | L-Band correction subscriptions                             |
|                               | (can be combined with RTK)                                  |
| Antenna:                      | Precise Multi Frequency DGNSS                               |
| Accuracy* (RMS 67% / 95%):    | RTK: 1 cm / 1.7 cm  |
| Accuracy (NNIS 07 /07 55 /0). |   |
|                               | L-Band correction: 4 cm / 8 cm                              |
| RTK protocols supported       | L-Band correction: 4 cm / 8 cm<br>ROX, RTCM v3.1, CMR, CMR+ |



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