

# SYSTEM 4000 GMDSS

Less is more



## SAILOR RT4822 VHF DSC A true classic with more features



The SAILOR RT4822 VHF DSC simplex/semiduplex VHF radiotelephone with built-in DSC is a part of Sailor's compact System 4000 GMDSS solution. SAILOR RT4822 is the latest version of the most famous VHF on the seven seas, from one of the leading and most experienced manufacturers of maritime communication equipment in the world.

- Dedicated channel 70 receiver
- Extended class-A DSC facilities
- User-friendly soft-key based interface simplifies the operation
- Graphic LCD display
- Dedicated protected distress button
- Acoustic and visual alarms
- Built-in real time clock
- Serial SPARC-bus system interface
- Printer and NMEA Navigator interface



# SAILOR

When safety counts

# TECHNICAL DATA

Conform to all relevant international requirements and resolutions as agreed by ETSI, IEC, ITU and IMO as well as other national requirements. These specifications include i.e. ETS 300 162, ETS 300 338, IEC 1097-3 and IEC 1097-7.

The SAILOR RT4822 VHF DSC is specially suitable for the professional maritime business. The radio is an advanced DSC unit (class A) with all the necessary equipment built in to one compact unit and therefore ideal for areas with limited space as it is the case on most vessels.

In a basic configuration the SAILOR RT4822 includes a transceiver unit and a handset. The SPARC-bus interface, an advanced balanced data and AF interface, can be used to interconnect multiple control units and for exterior computer based control/programming options. The maximum distance between transceiver unit and handset control unit may be 40 m in 12V DC installations, in 24V DC installations up to 80 m.

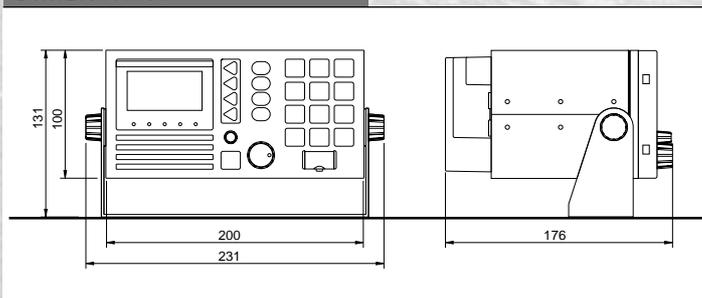
The Sailor VHF radio combines transmitter, receiver and a 4W loudspeaker in one. The set is equipped with an audio amplifier capable of delivering an additional 6W into an external loudspeaker. The nominal system power supply is 12V DC. By means of SAILOR N163S and/or N420, the system can be powered from the AC mains or a 24V DC battery.

A standard NMEA interface for connection to on-board navigational equipment is available in the transceiver option connector.

## GENERAL

Normal channels:	All int. ch's for 25 kHz operation Up to 55 private channels
Opt. channels:	All int. ch's for 12.5 kHz operation Up to 224 ch's with up to 54 private ch's
Channel spacing:	25 kHz / opt. 12.5 kHz
Frequency range:	150.8 MHz - 163.6 MHz
Operating modes:	Simplex/Semi-duplex
Modulation:	G3EJN for telephony receiver G2B for DSC signaling
DSC operation:	According to Rec. ITU-R M. 541-6 and Rec. ITU-R M. 689.2
DSC Protocol:	According to Rec. ITU-R M. 493-7 class A
Navigator interface:	NMEA 0183, GGA, GLL, ZDA
Frequency stability:	+ 10 ppm/opt. + 5 ppm
Aerial connectors:	Standard 50Ω female, SO239
Temperature range:	-15 °C to +55 °C
Supply voltage:	13.2V DC Nominal
Supply range:	10.8V DC to 15.6V DC
Supply current:	Stand-by 0.27A Transmitter on 1.6A (low power) Transmitter on 5.4A (high power)
Transceiver dimen.:	100x200x176 mm
Transceiver weight:	2.5 kg

## DIMENSIONS



Sailor RT4822  
Bracket mounted

## RECEIVER

Sensitivity for 12 dB SINAD:	-119 dBm or 0.25 μV p.d.
Symbol error rate below 1x10 <sup>-2</sup> at:	-119 dBm or 0.25 μV p.d.
AF rated power	
Output 1:	4W/4Ω
Output 2:	6W/4Ω
Distortion THD:	Below 5%
Signal/noise ratio:	Better than 40 dB
AF response:	-6 dB/octave
Spurious emission:	Below 2 nW
Spurious resp. att.:	More than 70 dB
Intermodulation att.:	More than 68 dB
Blocking:	More than 90 dBμV
Co-channel rejection:	Better than -10 dB
Adj. ch. selectivity:	More than 70 dB

## TRANSMITTER

RF output power:	High 25W + 0 dB to -0.5 dB Low 0.9W + 0.5 dB to +1 dB
Adj. ch. power:	Below -70 dBc
Spurious radiation:	Below 0.25 μW
Cabinet radiation:	Below 0.25 μW
AF response:	+6 dB/octave
Distortion:	Below 5%
Signal/noise ratio:	Better than 40 dB
Modulation:	1700 Hz ± 400 Hz 1200 Baud (30 ppm)
AF frequency error:	Below + 10 Hz
Residual DSC-mod.:	Below 26 dB

Typical specifications subject to change without further notice.



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