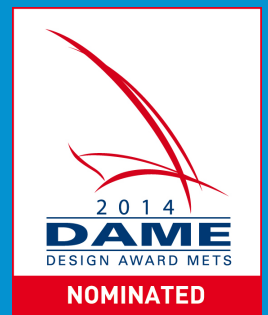# Seapilot Vector Compact
by True Heading

Perfect for the Seapilot Concept!

Improves your (Seapilot) Navigation!

The SEAPILOT VECTOR COMPACT makes your Seapilot Navigation Application and other navigational systems even better! It gives very precise and fast heading information – at all courses! Navigational systems such as radars, autopilots, sonars etc., that depend on compass heading information will significantly improve their performance. The SEAPILOT VECTOR COMPACT is based on the same unit as the True Heading Vector Compact making the installation very easy, and thanks to the technology used in the unit, the SEAPILOT VECTOR COMPACT has a unique ability to withstand mutli pathing problems – even in the most difficult environment!

The heading information from the SEAPILOT VECTOR COMPACT will give you excpetional heading data superior to a fluxgate compass with rate sensors – but at similar cost! Additionally, you will get high accurate GPS information (POS, SOG and COG)!

The SEAPILOT VECTOR COMPACT provides heading, as well as position, information at an update rate of up to 10 Hz (real time). It has integrated SBAS DGPS capability and it is equipped with rate gyro sensors that supports the unit during quick changes in direction, giving an unprecedented accuracy.

seapilot

The Seapilot Concept.

The **Seapilot Concept** is based on the navigation application Seapilot that can be downloaded to your tablet/phone. In the application you can navigate as you would in a plotter - only faster, easier and more intuitive! Seapilot uses vectorized charts based on S-57 data giving you the very best charts available! You can see your position, make routes and wp´s as well as see your past track, etc. To the application you can connect the **Seapilot Vector Compact GPS compass** (the smallest GPS compass in the world!) and/or the **Seapilot AIS** in order to see other ships[1], or be seen by other ships!

Seapilot app showing the Stockholm harbour. With the menu list and data boxes present.

Seapilot app showing AIS targtes in London. Without the menu list and data boxes present.

Technical specifications
GPS Sensor Specifications

Receiver Type	: Vector GPS L1 Compass
Signals Received	: GPS
Channels	: Two 12-channel, parallel tracking (Two 10-channel when tracking SBAS)
GPS Sensitivity	: -142 dBm
SBAS Tracking	: 2-channel, parallel tracking
Update Rate	: 10 Hz standard (pos & heading)
Horiz. Accuracy	: < 3.0 m 95% confidence (autonomous, no SA[2]) < 1.0 m 95% confidence (DGPS[3])

Heading Accuracy	: 2° rms
Pitch/Roll Accuracy	: 2° rms
Heave Accuracy	: 30 cm[4]
Rate of Turn	: 90°/s maximum
Comp. Safe Dist.	: 30 cm (11.8 in)
Cold Start	: < 60 s (no almanac or RTC)
Warm Start	: < 20 s typical (almanac and RTC)
Hot Start	: < 1 s typical (almanac, RTC & pos)
Heading Fix	: < 10 s typical (valid position)
Maximum Speed	: 1,850 kph (999 kts)
Maximum Altitude	: 18,288 m (60,0000 ft)

Physical

Dimensions	: 25.5 L x 12.5 W x 4.0 H cm (10.0" L x 4.9" W x 1.6" H)
Weight	: 0.42 kg (0.9 lb)
Pow/Data connect.	: 8-pin Male for Serial or 5 Pin Male NMEA 2000 Micro connector

Vendevägen 90
SE-182 32 Danderyd
Sweden
Phone +46 8 6222660
Fax   +46 8 54593910
info@trueheading.se

Communications

Serial Ports	: 2 full-duplex RS-232[5] or NMEA 2000[6]
Baud Rates	: 4800 - 115200
Correction I/O Protocol	: RTCM SC-104
Data I/O Protocol	: NMEA 0183[5] or NMEA 2000[6]

Environmental

Operating Temperature	: -30°C to + 70°C (-22°F to + 158°F)
Storage Temperature	: -40°C to + 85°C (-40°F to + 185°F)
Humidity	: 100% non-condensing
Vibration	: IEC 60945
EMC	: FCC Part 15 Subpart B, CIS PR22, CE
IP Rating	: IP69
Enclosure	: UV resistant, white

Aiding Devices

Gyro:
Provides smooth heading, fast heading reacquisition and reliable < 2° heading for periods up to 3 minutes when loss of GPS has occurred.

Tilt Sensors: Assists in fast startup of heading solution.

Electrical

Input Voltage	: 8 to 36 VDC
Power Consumpt.	: ~ 2 W nominal
Current Consumpt.	: 165 mA @ 12 VDC
Power Isolation	: Isolated to enclosure
Reverse Polarity Protection	: Yes

1   Other ships must have an AIS transponder.
2   Depends on multipath environment, number of satellites in view, satellite geometry and ionospheric activity
3   Depends on multipath environment, number of satellites in view, satellite geometry, ionospheric activity and use of SBAS
4   Based on a 40-second time constant
5   NMEA 0183 model only.
6   NMEA 2000 model only.

255mm (10.0")
125mm (4.9")

X
X = 40mm (1.6")

Weight: 420gr (0.9lb)

2015-01-12

This document is True Heading AB copyright. The True Heading policy is that of continous research and development and is reserved to alter specification without prior notice.