

**CAT ROT** - wireless pilot plug adaptor with Rate Of Turn  
**CAT I** - stand alone high quality position and speed unit



## CAT ROT

The E-Sea Fix CAT ROT is a small and compact pilot unit designed for the professional pilot.

The advantage of using the AIS pilot plug as data source is the limited size, weight and cost of the system the pilot has to bring.

The data provided over the AIS pilot plug is however compromised to a degree where essential data as real time rate of turn (ROT) and reliable prediction are not available.

The CAT ROT unit is however much more than just a pilot plug repeater.

The CAT ROT improves the heading resolution and measures a reliable real time ROT making the Pilot Plug a suitable data source for pilot systems.

This is obtained via an integrated rate-sensor, micro processor and intelligent kalman filtering. The result is an added decimal degree to the heading resolution and a real time, reliable ROT making smooth Projections of the vessels predicted path with current motion dynamics a reality.

Data is transmitted via Wi-Fi to the pilot tablet / Notebook

As an option the CAT ROT can be provided with an integrated DGPS w. SBAS capability. This receiver is used as a back-up solution in case of a defective pilot plug and the unit is thus placed outside in the bridge wing with a clear view to the sky.

## CAT I

For operations requiring a good quality positioning and speed measurements the standard pilot plug data can be compromised due to the resolution and more important the accuracy of the entered antenna offsets in the AIS. To eliminate this risk the CAT ROT unit can be used in combination with a separate good quality positioning unit - the CAT I.

The CAT I is a stand-alone high accuracy GPS receiver with the capability of GPS/GLONASS and available SBAS systems such as EGNOS, WAAS, MSAS, GAGAN etc.

CAT ROT / CAT I combination provides:

CAT ROT:	<ul style="list-style-type: none"> <li>- Heading with decimal degrees</li> <li>- ROT &lt; 0,5 deg</li> <li>- AIS targets</li> </ul>
CAT I :	<ul style="list-style-type: none"> <li>- Speed 1cm/sec (RMS)</li> <li>- Position (GPS/GLONASS/SBAS) acc.&lt; 0.8 m (RMS)</li> </ul>



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## Features:

- Rate sensor
- Navigation processor
- Intelligent filtering
- Decimal degree on heading
- Reliable, real time ROT
- AIS targets
- Reduced weight (< 300g).
- Pocket size (138x100x25 mm)
- Low power consumption.
- USB charge
- Extended battery capacity 16 hours
- Autopolarity conversion (APC)
- Access point functionality (Infrastructure W LAN)
- WIFI connection to pilot tablet / notebook
- Integration to separate speed and positioning unit (CAT I)
- Optional built in GPS w SBAS (EGNOS, WAAS, MSAS)



Specification:	CAT ROT	CAT I
Weight:	< 300g	< 300g
Dimensions:	138x100x25 mm	138x100x25 mm
Heading resolution:	0,1 deg	-
ROT:	< 0,5 deg / min	-
Integrated rate sensor:	YES	-
Integrated navigation processor:	YES	-
Battery capacity:	16 hours	14 hours
Access point functionality: (Infrastructure W LAN)	YES	YES
WIFI link to pilot display:	YES	YES
USB charge:	YES	YES
AIS targets:	from ship AIS	-
Speed accuracy:	from ship instruments	1 cm/sec (RMS)
Position accuracy w. SBAS:	from ship instruments	< 0.8 m (RMS)
Option for ship shore link: (GPRS or UMTS)	via pilot tablet / notebook	via pilot tablet / notebook

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