YDK Technologies

E-COurse Pilot

E C O n o m y

E-コース パイロット

ECOP

MPH219

PT500 Series UPGRADE

株式会社YDKテクノロジーズ
YDK Technologies Co., Ltd.

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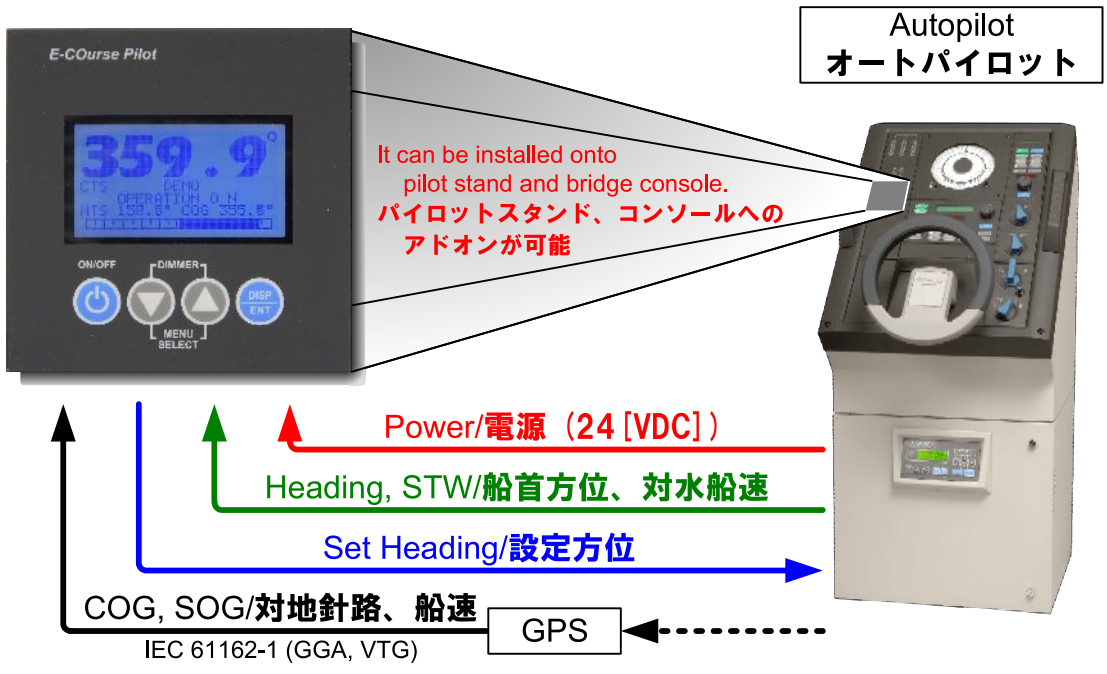
FEATURES

- ◆ E-COurse Pilot measures XTD (Cross Track Distance) generated by the sea current or wind, produces a virtual course line, and controls the vessel to follow on that line.
- ◆ E-COurse Pilot reduces a "stray" off from the track, and helps the vessel to arrive the destination with shorter track distance.
- ◆ Compared to TCS, rudder to steer is kept small and infrequent. This contributes to fuel saving effect. By combination with BNAAC control, further powerful synergistic effect can be expected.
- ◆ Virtual course line is set automatically by "POWER ON". No need of complicated operations!
- ◆ E-COurse Pilot is "ADD-ON" feature to the existing PT500 model.

特徴

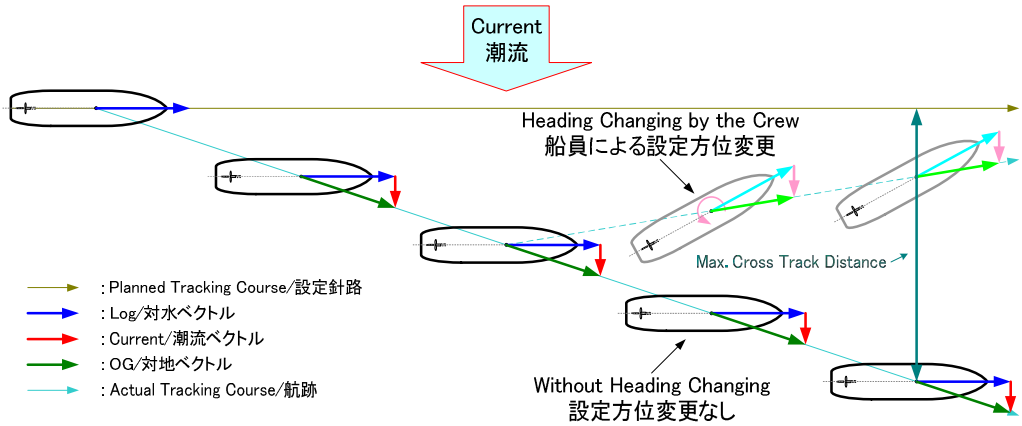
- ■ **潮流・風浪による横流れを計測し、船をコースライン上に制御**
  コースライン上の遠方に目的地を仮想設定し、操船制御
- ■ **航路損失の増大を抑えることができ、短距離で目的地へ到達可能**
- ■ **舵角/頻度はTCSより少なくなり、省エネ性に寄与**
  舵制御をBNAACで行えば、さらに舵角/頻度は減少
- ■ **電源ONで、コースラインを自動設定するため、複雑な操作が不要**
- ■ **アドオンタイプのため、既存のオートパイロットへ増設が可能**

SYSTEM DIAGRAM/システム系統図



CONTROL METHOD/制御方法

Heading Control System
ヘディングコントロールシステム(オートパイロット)



◆ Controlling of the vessel's heading through the water

※ HCS controls the vessel's heading through the water. So, drift by current or wind is not controllable.

※ To compensate the "stray" and to keep the vessel on track, repeated manual adjustment of the heading shall become necessary. This results in a longer rhumb line.

※ This also means an increased workload to the ship's crew, because the crew needs keep checking the vessel's position, and adjusting the heading, as may be required.

※ Drift by the current/wind is not controlled.

※ Loss of track is increased by several times heading changing.

※ The workload of crew is increased by several times position checking and heading changing.

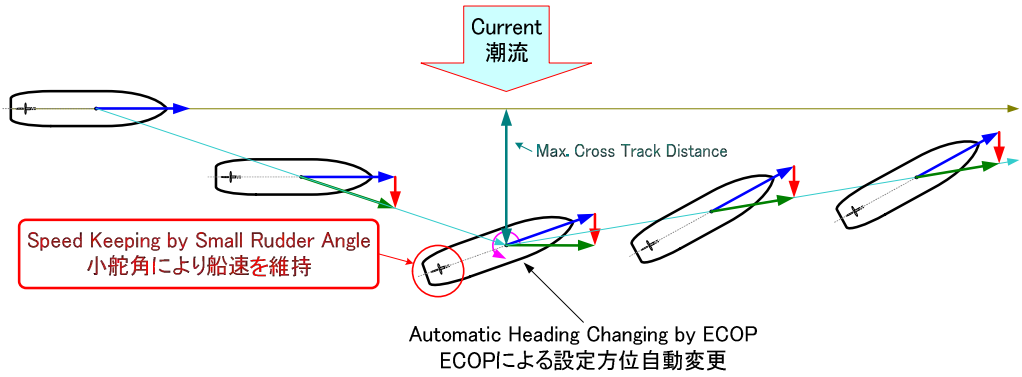
◆ 船の船首方位(対水方位)を維持

※ 潮流・風浪による横流れまでは制御しない

※ コースラインからのずれと修正を繰り返し行うため、航路損失が発生し、航程が増える

※ 設定船首方位の変更が都度行われ、航海士の負荷が増える

E-COurse Pilot



◆ Controlling of the vessel on the planned course line

※ E-COurse Pilot minimizes a stray off from the track, by generating a virtual course, and keeping the vessel to follow on that line.

※ Unlike HCS, repeated manual adjustment of heading is not required.

※ Compared to TCS, which requires a precise control, E-COurse Pilot realizes fuel-saving, by simply keeping the vessel on the course by small/infrequent rudder to steer. Operations are as simple as just power on!

※ The vessel can expect further powerful synergistic effect by using E-COurse Pilot and BNAAC, together.

◆ 潮流・風浪による横流れを計測し、船をコースライン上に維持制御

※ 遠方に目的地を仮想設定し、航路損失を最小限に

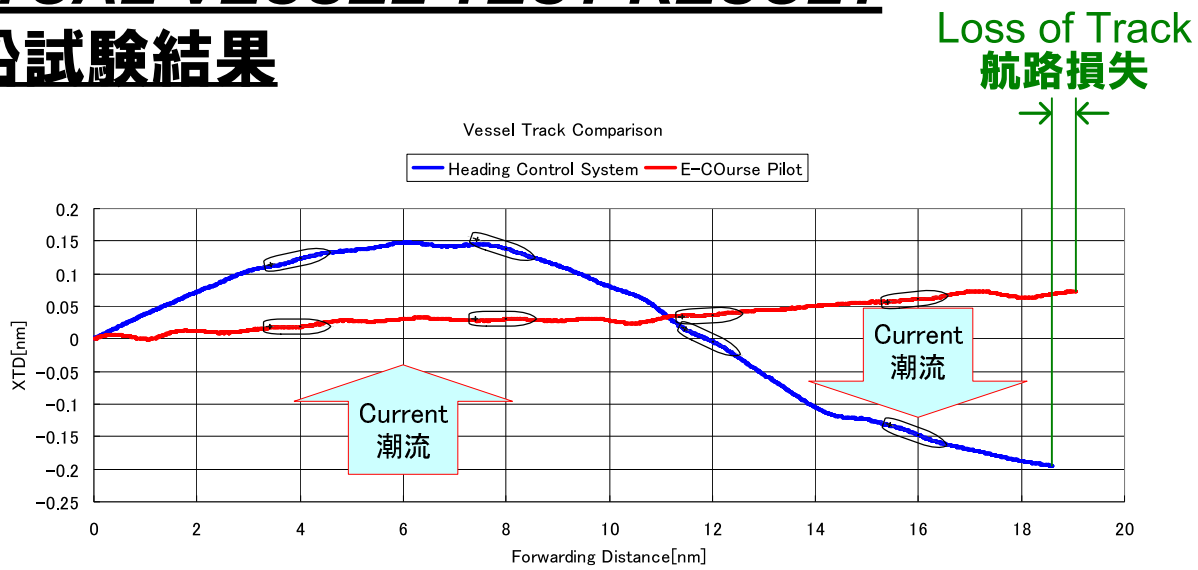
※ コースラインからのずれに対する、頻繁な方位変更が不要

※ TCSのような緻密な制御はせず、最小の舵角・頻度で、コースラインへ復旧

※ ECDIS上での航路計画は不要で、電源ONのみで対地制御を開始

※ BNAACとの組合せでさらなる省エネ性を発揮

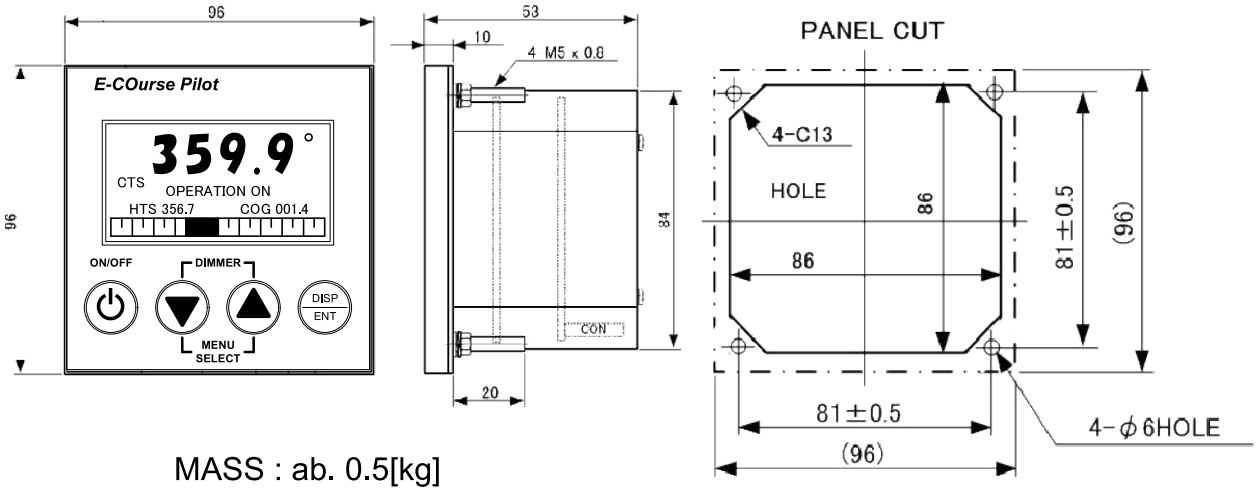
ACTUAL VESSEL TEST RESULT
実船試験結果



- ◆ On actual vessel test, ab. 1% of fuel consumption saving was achieved.
- ◆ More fuel saving is expected by combination with BNAAC.

■ **実船試験において、約1%の燃料消費量削減効果が確認されました。**
■ **BNAACとの組合せにより、さらなる燃料消費量削減効果があります。**

OUTLINES/外形図



MASS : ab. 0.5[kg]

YDK Technologies URL :https://www.ydktechs.co.jp

Caution: Please read the manual before using this product

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Subject to alteration due to technical developments without notice

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