

# AUTO PILOT

# PT900



YDK Technologies Co., Ltd.

# PT900 : An adaptable autopilot which optimizes gain, and minimizes unnecessary steering action.

PT900 fully conforms to the technical requirements below, and improves on economical efficiency, safety, usability, and extensibility.

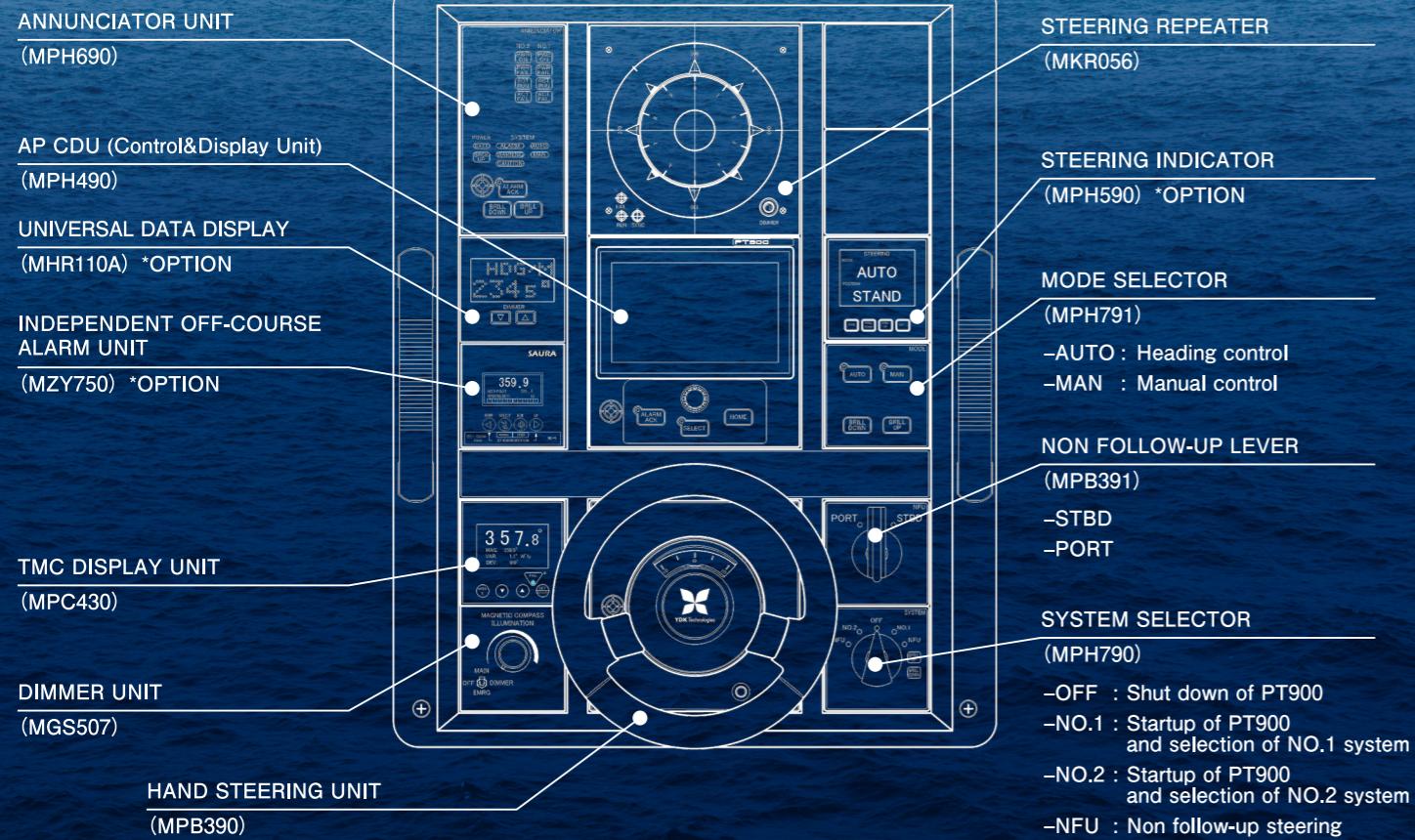
This Autopilot can be adapted from small vessels to large vessels.

## Conformity standards

- IMO Resolution A.342(IX),A.694(17) and 64(67) Annex 3 & 191(79)
- ISO 11674(2006), IEC 60945(2002)
- IEC 61162-1(2010), IEC61162-2(1998)
- IEC 62288(2014)

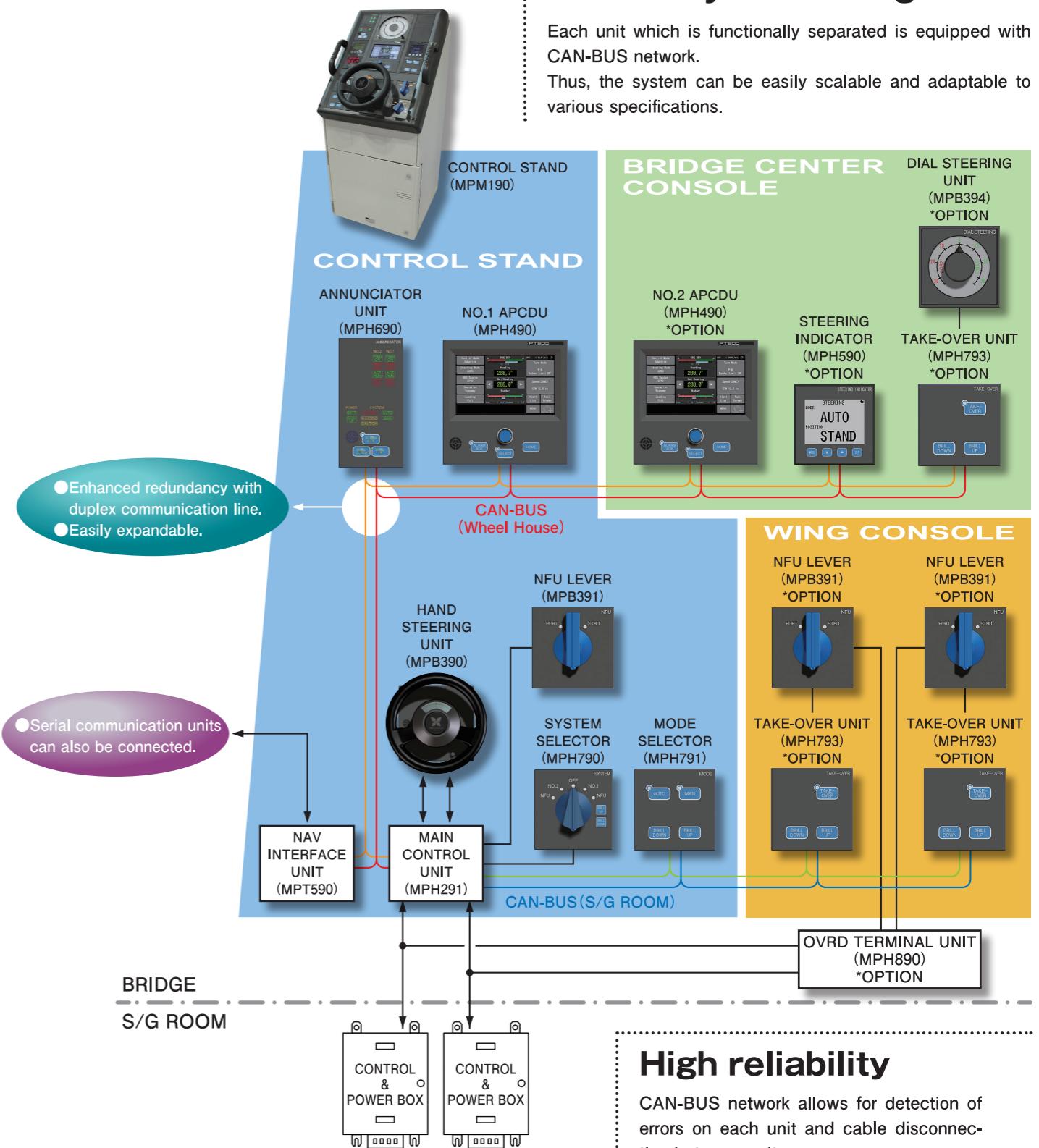
## AUTO PILOT PT900

### CONTROL STAND UPPER PANEL



## Flexible system configuration

Each unit which is functionally separated is equipped with CAN-BUS network. Thus, the system can be easily scalable and adaptable to various specifications.



## Various optional units

PT900 offers various kinds of optional units to meet customer's requests.

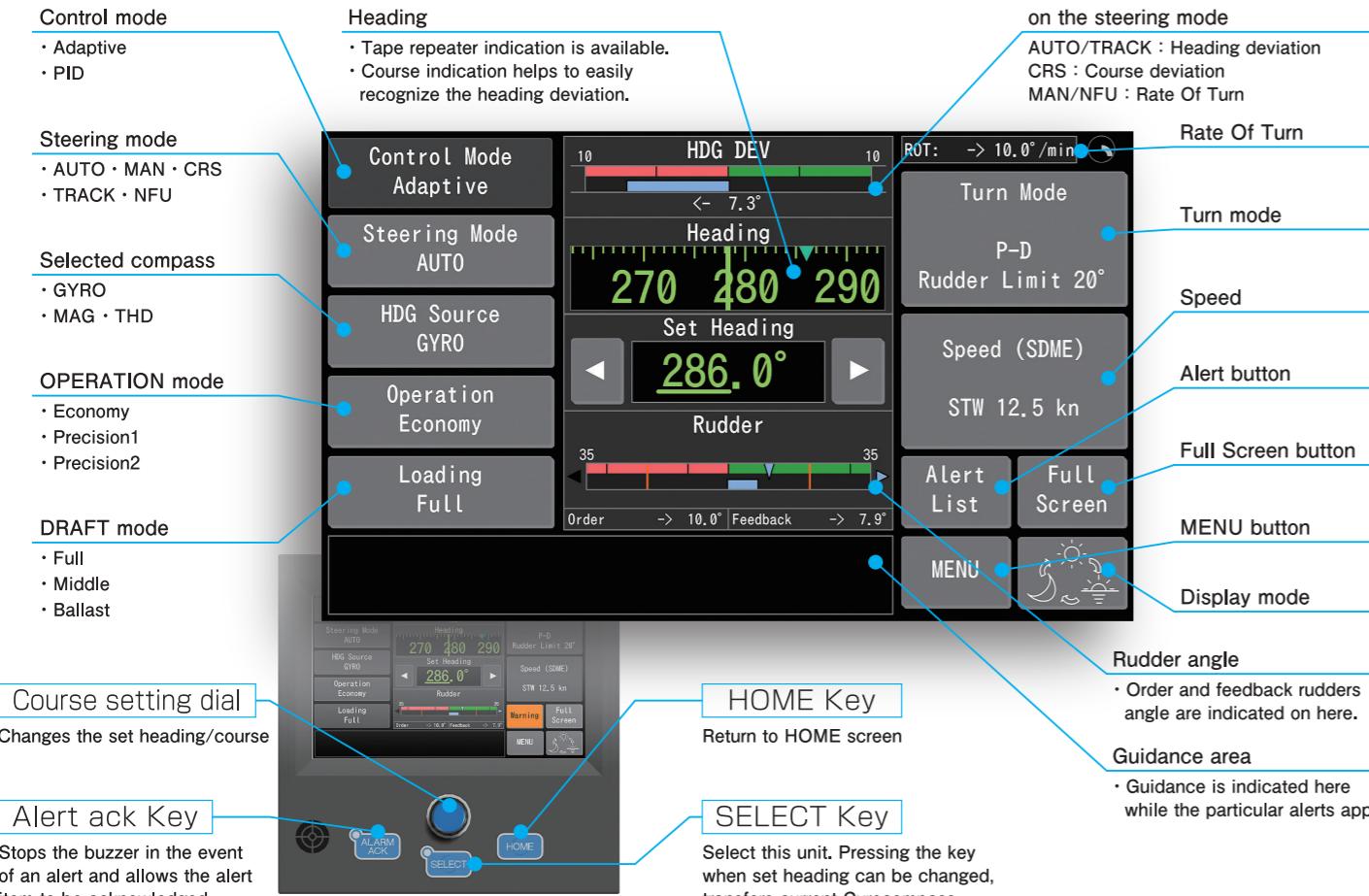
- DIAL STEERING UNIT (MPB394)
- STEERING INDICATOR (MPH590)
- STEERING ANGLE INDICATOR (MPH591)
- STEERING ANGLE SELECTOR (MPH792)
- TAKE-OVER UNIT (MPH793)
- FU OVERRIDE OPERATION UNIT (MPH794)
- NFU OVRD OPERATION UNIT (MPH795)
- ANALOG I/F UNIT (MPT490)

## High reliability

CAN-BUS network allows for detection of errors on each unit and cable disconnection between units.

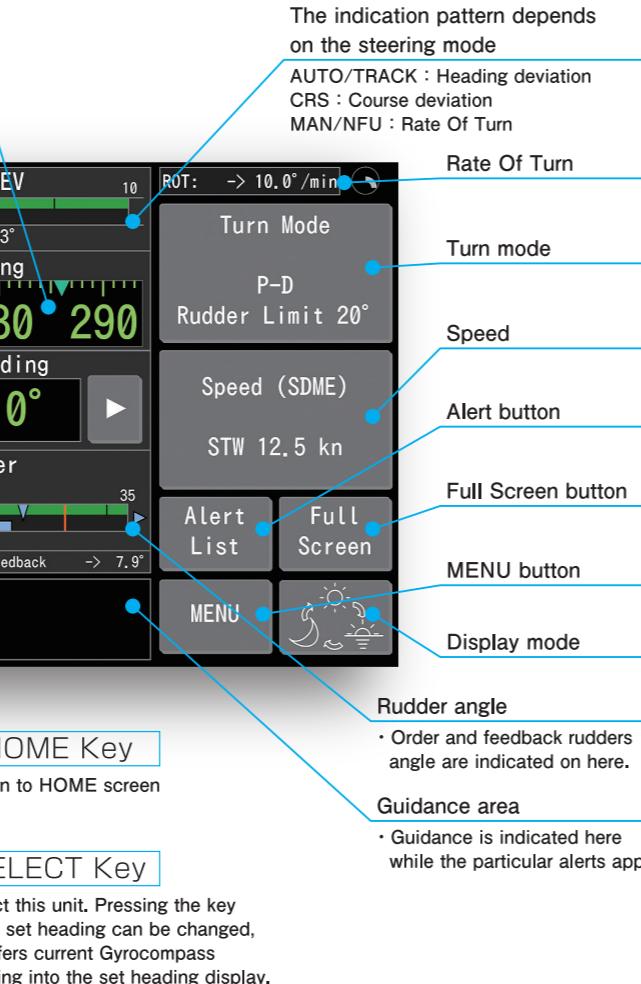
## 7 inch color display

- High visibility
- User-friendly screen layout
- Constant display of main data



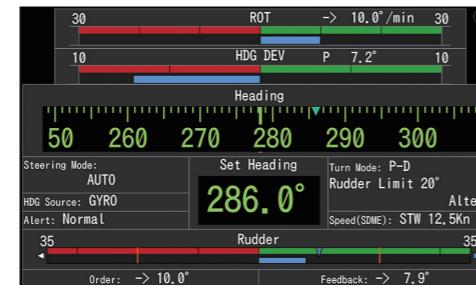
## Touch panel screen

- Enhanced man-machine interface
- Intuitive operation



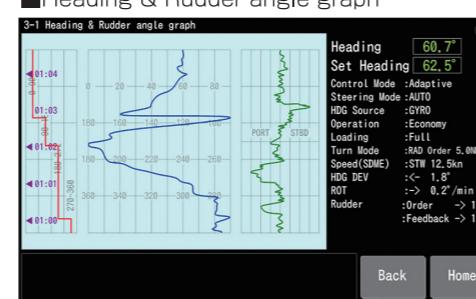
## Full screen mode

Can be used as Mini conning display by enlarging necessary data.



## Various display (for PT900A)

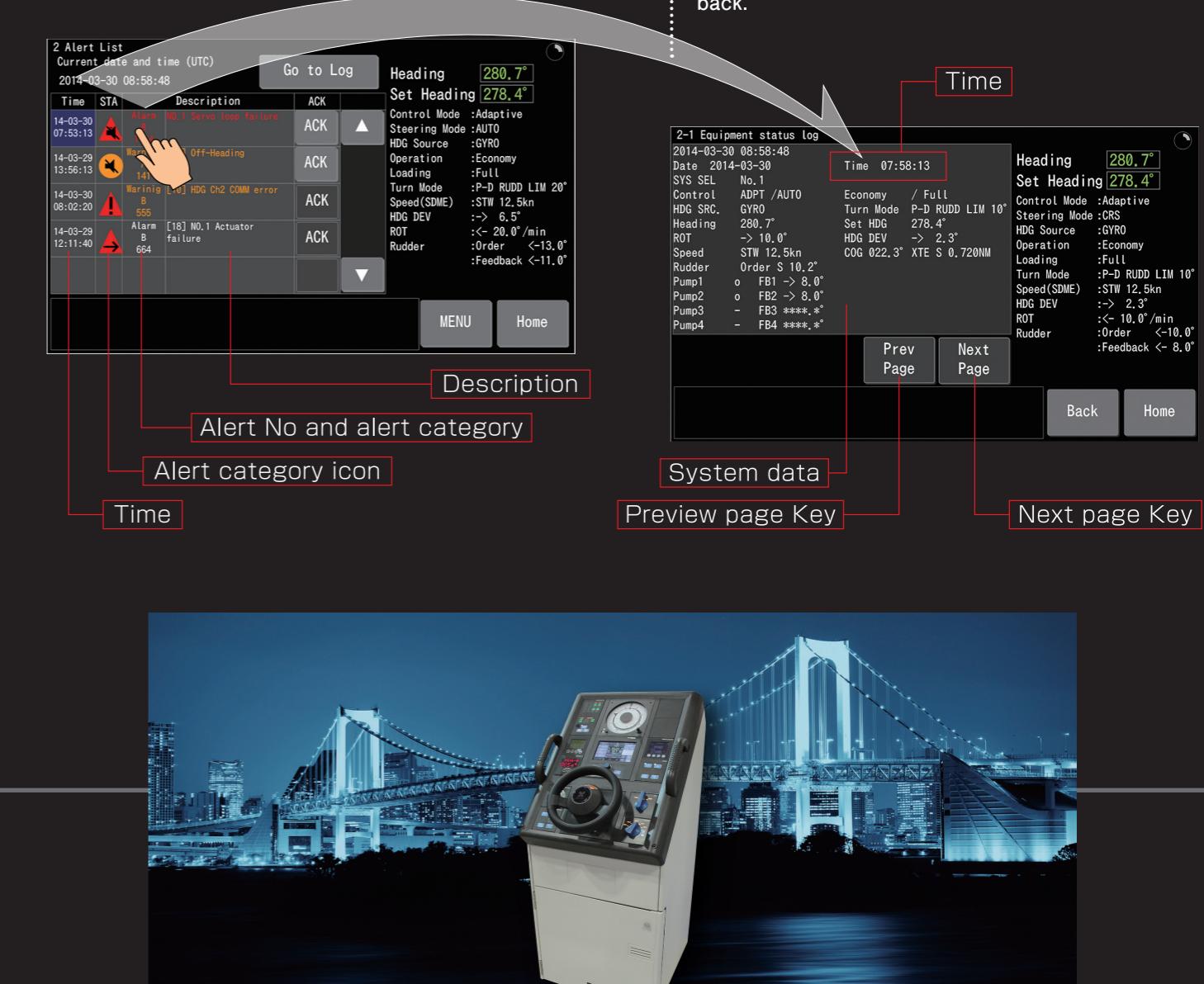
Ship's heading and actual rudder can be displayed for 60 mins.  
Autopilot controllability can be checked easily.



## Alert display and logging function

By displaying the alerts in a list, the status of alerts can be checked.

Past alerts can be checked on Alert Log screen (UP to 1000 factors can be recorded)



## Screen color tone and central dimmer control

By touching the screen color icon, the color tone can be changed between 3 types : Day, Dusk and Night.

Also, central dimmer allows to change the brightness of all units, simultaneously.

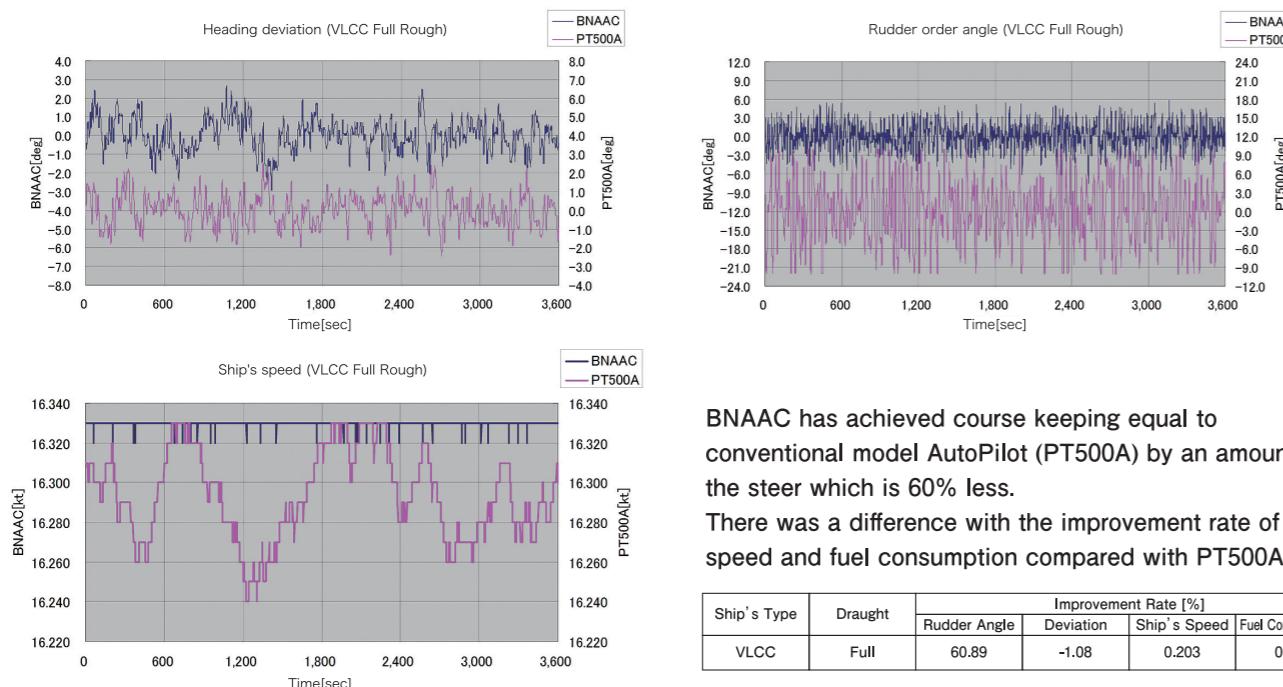


## PT900 fuel saving function

### Batch Noise Adaptive Autopilot Controller (BNAAC)

BNAAC is an energy saving Autopilot which adopts modern control theory.

Optimal rudder angle is automatically updated by calculating the disturbance around the ship on straight leg.



BNAAC has achieved course keeping equal to conventional model AutoPilot (PT500A) by an amount of the steer which is 60% less.

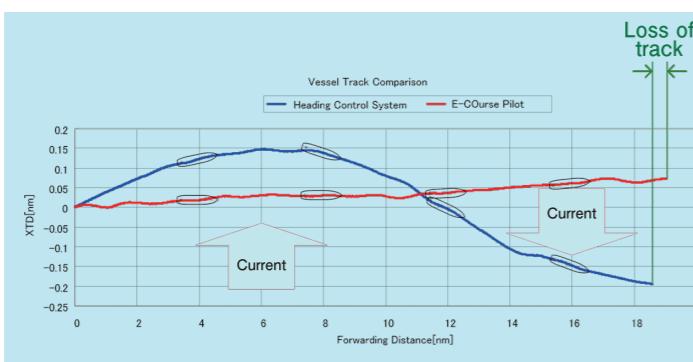
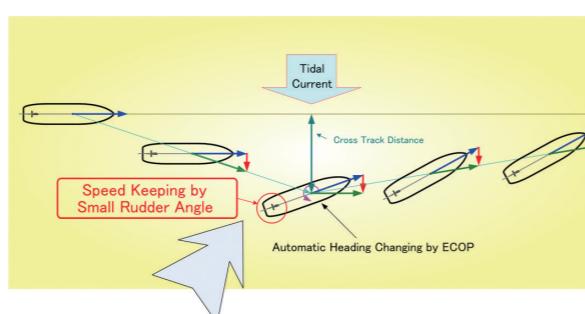
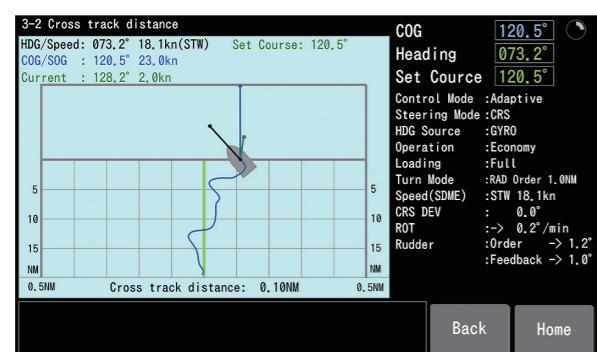
There was a difference with the improvement rate of ship's speed and fuel consumption compared with PT500A.

### Course control (E-Course Pilot)

\*OPTION

Fuel saving effect is improved by incorporating control over the ground which reduces loss of track.

Course control is available by changing the steering mode to "CRS" on the screen of APCDU.

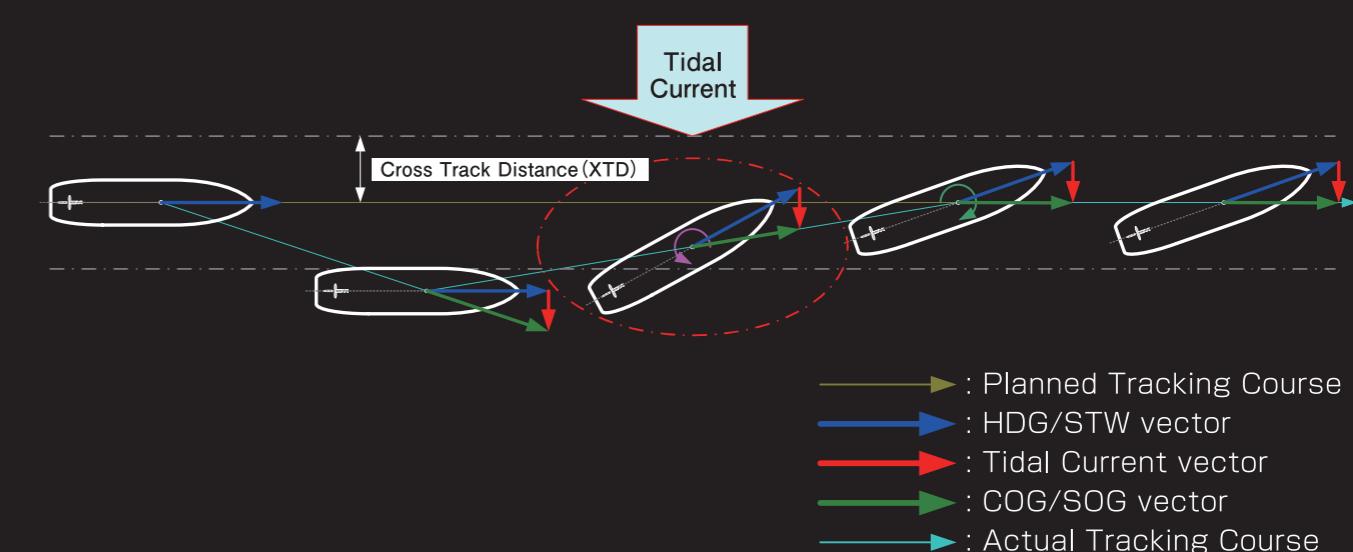


## Track Control System \*OPTION

PT900 can be interfaced with a number of partners' ECDIS, and provides Track Control System which contributes to ship's safety by compensating the drift caused by tide or wind and staying on the planned navigation route.



PT900 AutoPilot



# PT900 component models

PT900□-□-□-□□

Type of steering gear control (□ = No. of pumps)

- N□ : Direct activation of solenoid valves on steering gear pump unit
- N□F : Direct activation of solenoid valves on steering gear pump unit made by MITSUBISHI
- J□ : Hydraulic power unit for MITSUBISHI JANNEY steering gear
- H□ : Hydraulic power unit
- K□T : Continuous control steering gear made by KAWASAKI HEAVY INDUSTRIES
- Y□A : Torque motor control steering gear made by MITSUBISHI HEAVY INDUSTRIES
- T□ : Continuous control steering gear made by HATLAPA
- ANA□ : Analog control

Steering gear  
Systems :  
1 : 1 system  
2 : 2 systems

System style

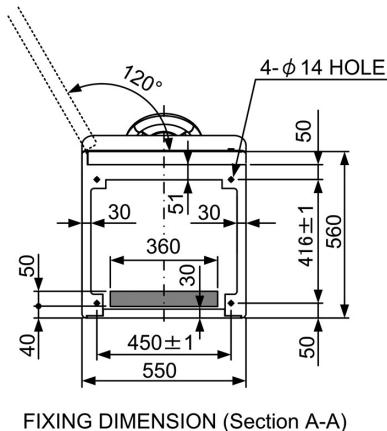
- S : Stand-alone steering stand
- K : Stand built-in CMZ900 Gyro compass
- P : Panel mounting type (Console mounting type)
- Q : INS concept type (Control stand and Console mounting)

Control model

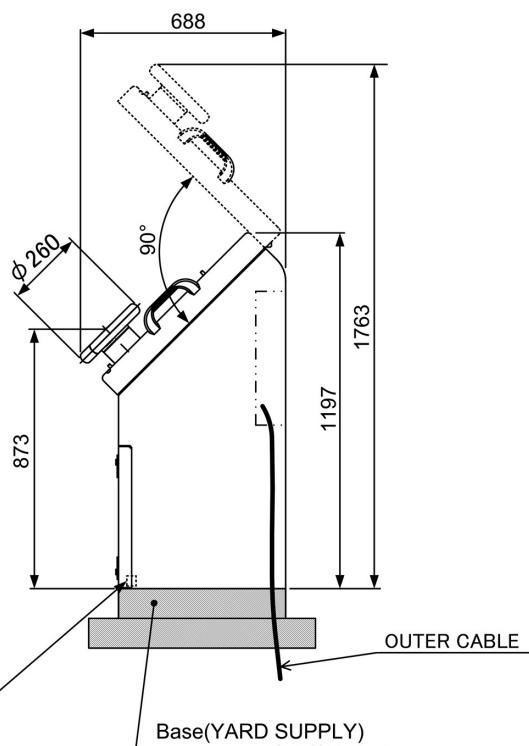
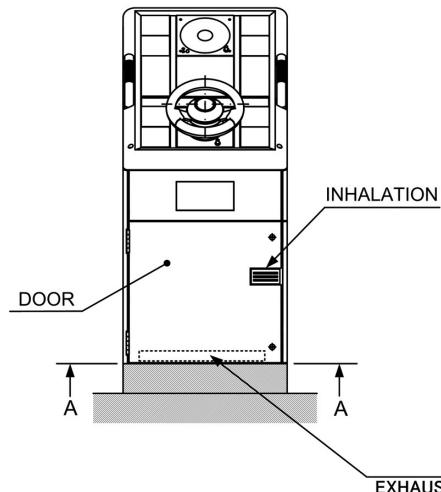
- A : PT900 Adaptive control type
- D : PT900 PID control type

## PT900 Outline

MODEL	MPM190
MASS	100kg



FIXING DIMENSION (Section A-A)



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