Raytheon Anschütz

PilotStar® NX

Heading Control System

PilotStar NX®

PilotStar NX is the new autopilot from Raytheon Anschütz.

Based on the experience of 6.000-installed PilotStar D's – the well-known predecessor – PilotStar NX offers superior steering performance, which is now combined with an extended range of functionality and an intuitive operation via the seven-inch touch TFT display. PilotStar NX is approved as heading control system for standard and for high-speed crafts.

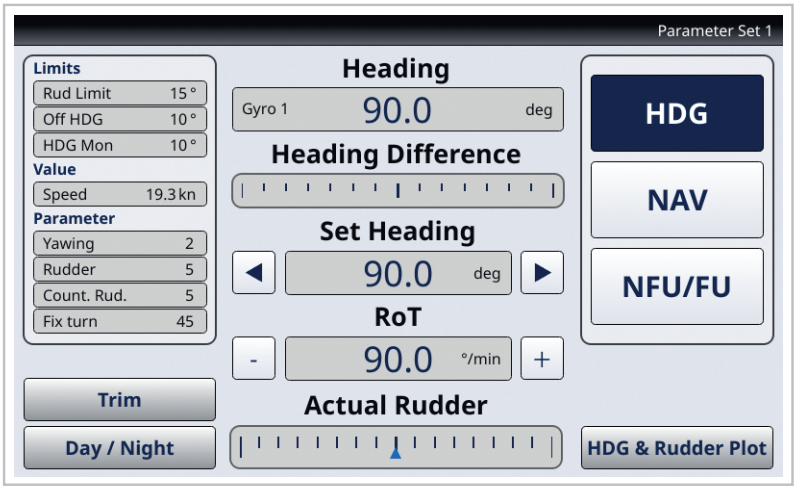
PilotStar NX includes latest technical developments such as Ethernet communication and bridge alert management. This makes PilotStar NX easy to integrate into various system environments and a safe investment for today and the future.

BENEFITS AT A GLANCE

- Intuitive operation thanks to 7" touch TFT display and large rotary knob for heading changes
- Graphical user support with heading & rudder plot and track data for perfect adjustment of the autopilot parameters
- Trim mode and fix turn for workboat applications
- Manual control of steering gear
- Connection of NautoSteer AS tiller(s) for the design of compact steering gear control systems
- Ease of use service features for simple and safe commissioning
- Compliant to latest performance and test standards for bridge alert management and standardized Ethernet communication (IEC 61162-450)

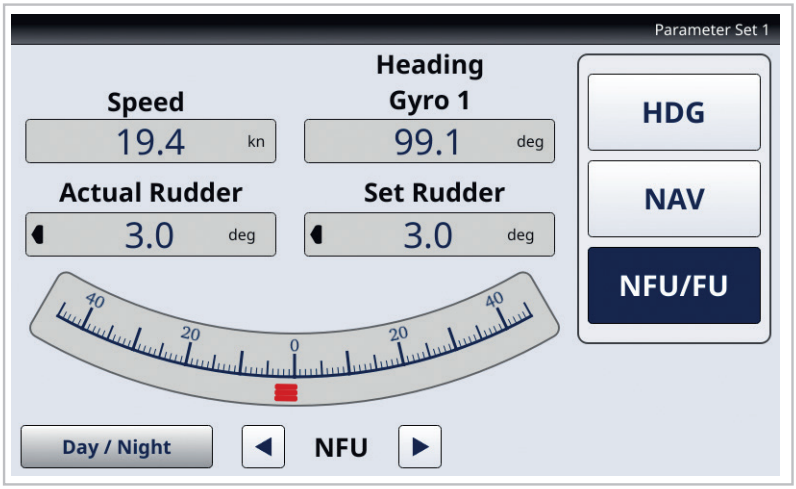
MODES OF OPERATION

PilotStar NX provides three main operating modes:
Heading control mode, NAV mode, NFU/FU control mode.



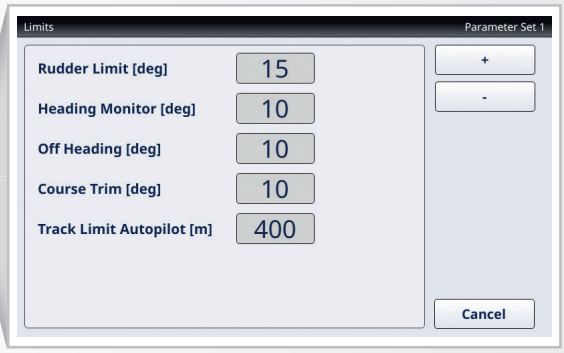
Heading control mode
The user enters a set heading and PilotStar NX steers the vessel on that heading automatically.

NAV mode
A route is planned on a GPS receiver, chart plotter or equivalent navigation system. PilotStar NX follows the set point commands from such systems.



NFU/FU control
The rudder is controlled manually by using the soft buttons on the touch display or by using the rotary knob.

INTUITIVE USER OPERATION

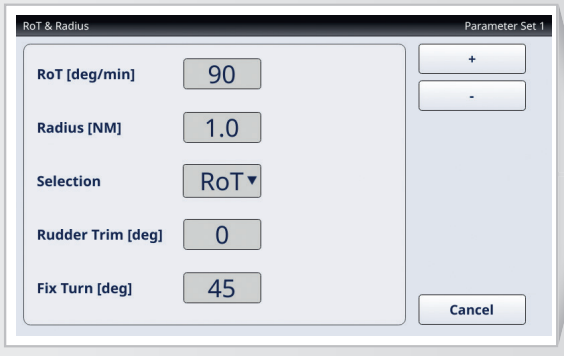


User definable limits are grouped in one view

PilotStar NX provides an intuitive operation philosophy. Users can access data and operate functions by simply touching the relevant area on the display. The large display offers a clear and well-arranged menu structure which allows users getting familiar with PilotStar NX within a minimum of time.

The left part of the display presents all relevant information about user defined limits and autopilot settings. All relevant information for heading control - actual heading, set heading and radius or rate-of-turn adjustment- are shown in the center part of the display. Finally, the right part of the display is used for mode control.

Up to five different parameter profiles can be saved



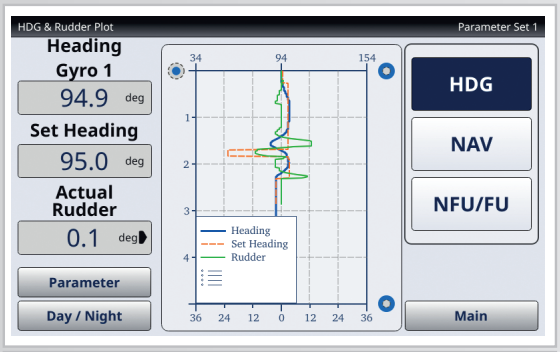
Rate-of-turn and radius settings are grouped in one view

FURTHER USEFUL FEATURES

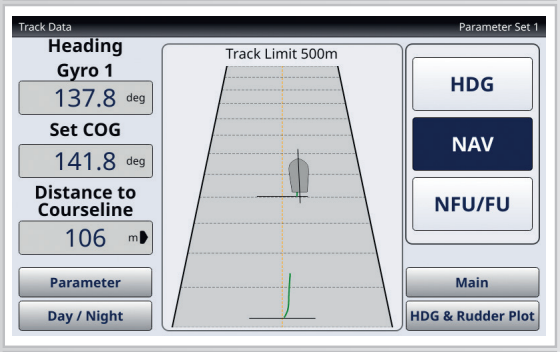
PilotStar NX provides useful features for special applications but also for day-to-day use.

"Trim mode" optimizes heading control for vessels with asymmetrical loads, such as fishing vessels and tugs. This mode reduces rudder activity and optimizes steering performance.

"Fix turn" allows pre-defined heading changes with a single push of a button. Useful, among others, for fishing vessels, tugs and search operations.



The heading & rudder plot makes the steering performance transparent and allows for simple adjustments of autopilot parameters in order to achieve best steering performance and optimal fuel consumption.



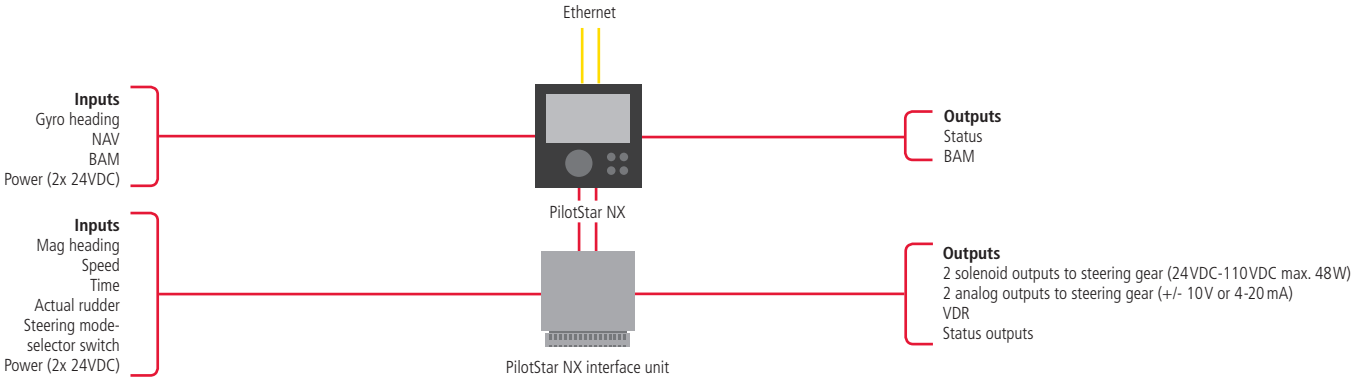
Graphical and numerical presentation of deviations from course over ground line in NAV mode.

Service features enable simple, logic, and safe commissioning. Even the connected steering components, such as the tillers, can be configured via PilotStar NX. No additional tools are necessary. The export and import of configuration data improves commissioning even further.

SYSTEM CONFIGURATIONS

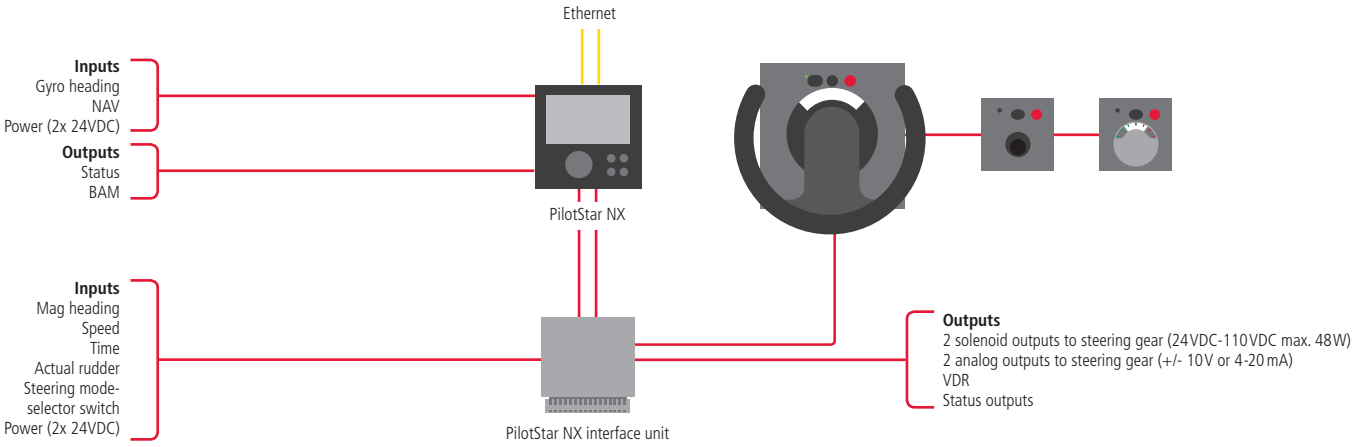
Standalone installation

Used for direct control of steering gear or in combination with steering gear control systems from other makers.



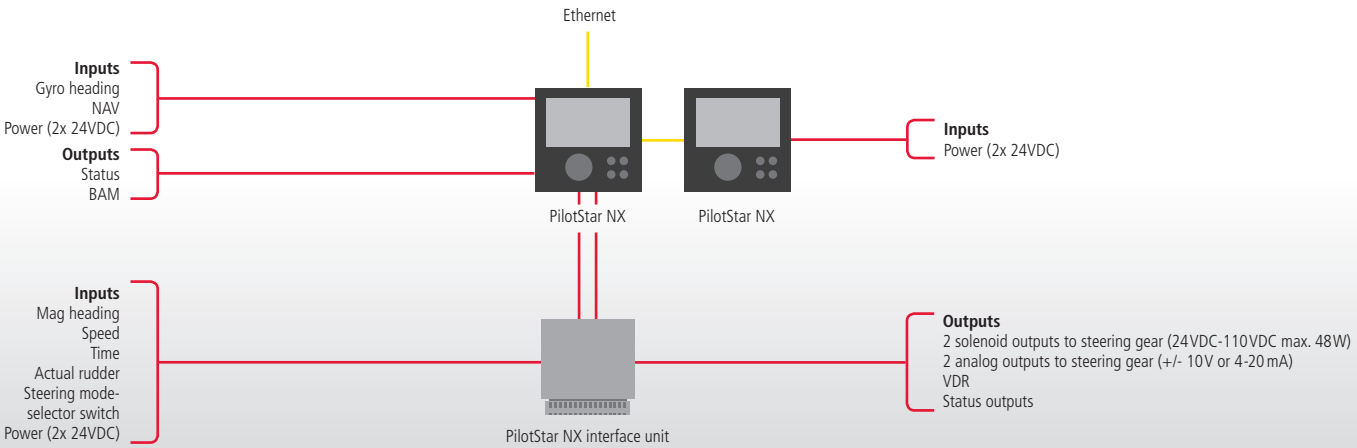
Standalone with NautoSteer AS tiller(s)

Enhance your heading control system with manual controls. FU tiller, NFU tiller and even a handwheel can easily be connected. NautoSteer AS tiller(s) can be connected in order to design a compact steering gear control systems.



Connection of a remote operator unit

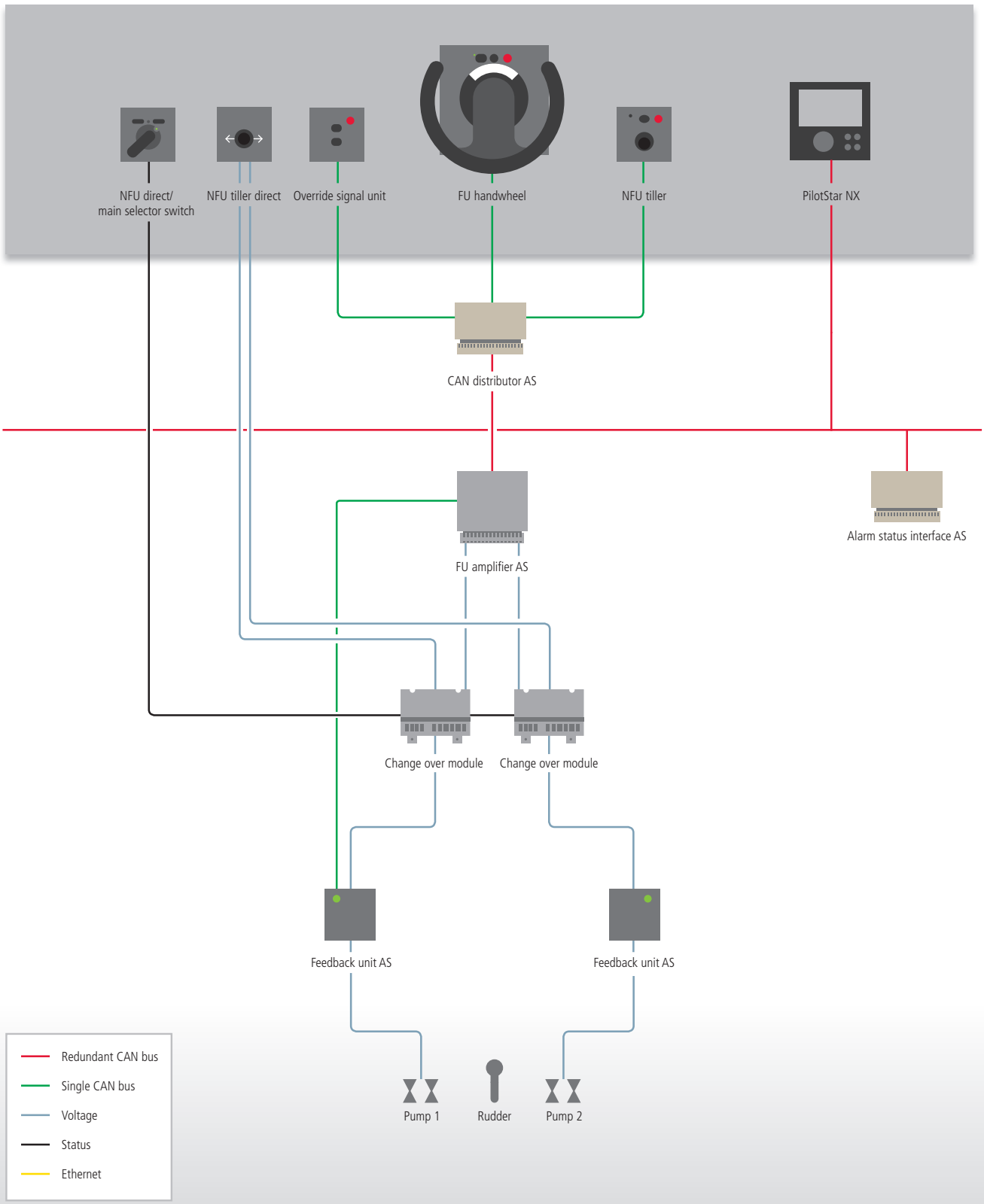
A remote operator unit is simply connected via Ethernet.



SYSTEM CONFIGURATIONS

Integration with NautoSteer AS

Easy integration into a NautoSteer AS steering gear control system by simply connecting PilotStar NX to the redundant CAN bus. No separate PilotStar NX interface unit required.



TECHNICAL DATA

Supply voltage & power consumption
- 24 V DC (18-36 V DC)
- Approx. 25 W

Signal inputs

Gyro compass, satellite compass
- Course Bus or NMEA telegrams HEHDT, HETHS, GPHDT, GPTHS

Magnetic compass / fluxgate
- Course Bus or NMEA telegrams HCHDT, HCHDG, HCTHS
- With magnetic compass sonde 108-010

Speed log
- Course Bus or NMEA telegrams VTG, VHW, VBW (with talker identifier VD, VM, VW, GP)
- 200 pulses/nm

For NAV mode
- NMEA telegram APB

Signal outputs

VDR connection
- NMEA telegrams HTD, RSA, PANZRSA, PANZSTA

Ethernet interface
- For above listed in- and outputs and alert communication

Control of steering gear
- 2 switching outputs (24V DC – 110V DC, max. 48 W)
- 2 analog outputs (+/- 10 V DC, max. 5 mA, or 4–20 mA)

Actual rudder from steering gear

+/-10V, 4-20mA, potentiometer

Status/alerts
- Off-heading
- Heading monitor
- Steering failure
- System failure
- Autopilot on
- Alert communication acc. to IEC 61162-1 or IEC 61924-2

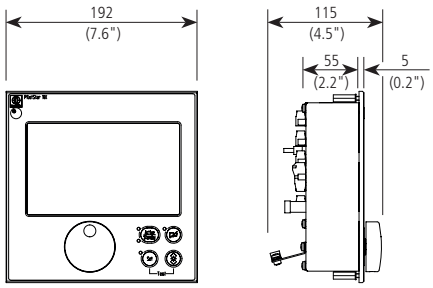
In accordance with
- ISO 11674, ISO 16329
- NMEA according to IEC 61162-1, IEC 61162-2 and IEC 61162-450
- IEC 60945
- IEC 62288
- A.342(IX), A.694(17), MSC.64(67) Annex 3, A.822(19)

For details refer to EC-type examination certificate.

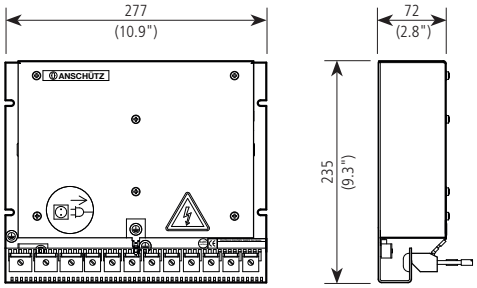
Type of enclosure acc. to IEC 60529
- PilotStar NX operator unit: IP23 / IP56 (front side)
- PilotStar NX interface unit: IP 12

Temperature range
- Operation: -15°C to + 55°C
- Storage: -40°C to + 70°C

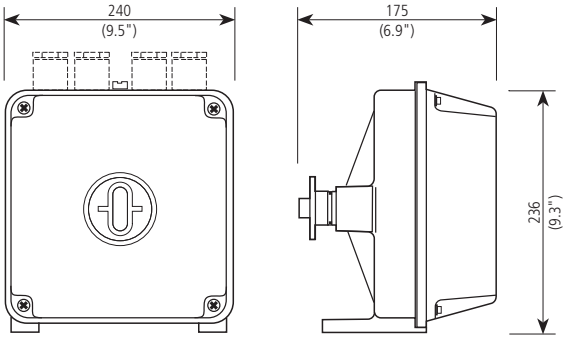
PilotStar NX operator unit 1.5 kg



PilotStar NX interface unit 3 kg



Feedback unit 4 kg



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