

FLUXGATE FGX 60/3

**INSTRUCTION MANUAL FOR USE AND INSTALLATION
WITH GOLD SERIES AUTOPILOTS**

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FORWARD


The FGX 60/3 NAVICONTROL fluxgate is an electronic sensor to suit to a normal magnetic compass. The sensor measures the magnetic field generated from the compass needle making two orthogonal coils. The sensor outputs are two proportional signals to the sine and cosine resulting of the angle between the prow and the magnetic north. This one is made of two parts: the magnetic sensor FGX60 and the junction box JB39/3. In the sensor there are the excitation and reading coils, as the junction box has the electronic card.

INSTALLATION AND CALIBRATION

The FGX 60 sensor must be installed on a magnetic compass with a 100mm. rose at least and an external **mechanical joint** (gimbal).

The optimal functioning of the autopilot results only if the magnetic compass doesn't have any kind of problems (broken needle, air bubbles) and if it is placed along from magnetic interferences. It is also important to have a correct azimuthal compensation that must be done only by skilled people. In some difficult cases (on iron or steel vessels), the vertical component compensation can be usefull.

For placing this sensor, please follow these instructions:

- place solidally up-side or down-side to the magnetic compass, using a **NOT MAGNETIC** bar with a 6mm. thread hole (not supplied by Navicontrol) **coinciding exactly with the rose centre** and screw in the pivot of the sensor. Insert the sensor laying down its arrow to the bow of the vessels, then tighten softly the two screws.
- connect the cables as the follow wiring scheme paying attention to the TB2 connector (there is a different wiring scheme if the FGX60 sensor is placed up-side or down-side the magnetic compass).
- **For the AP203, 303 and 3003 gold autopilots:** switch ON the autopilot and hold pressed the STBY and SET keys at least for two seconds. Release the keys.
- **For the AP103 gold autopilot:** switch ON the autopilot and hold pressed the  (LAMP) key for 5 seconds. Release the key.
- On the autopilot display you can see the heading value and the signal strenght of the FGX60 sensor. Turn the CM1 selector (JB39 junction box) untill you can read on the alphanumeric display, the value of **1600 ± 200 mV**. Align the FGX60 sensor to the bow, then tighten it.
- Press STBY key to exit the installation menu.

At this moment, you have finished the installation of the electronic compass.

FLUXGATE FGX60/3 wiring diagram for AP103 – AP203 – AP303 – AP3003 GOLD autopilots

