FURUNO

PRECISION FLUXGATE HEADING SENSOR

with Internal Gyroscope Rate Sensor

Model PG-500

- **Inexpensive heading sensor with the highest accuracy and stability in this class of equipment**
- **Unique true* or magnetic heading**
  ***Automatically compensates for local magnetic variation when an appropriate GPS navigator is connected**
- **Internal solid-state rate gyroscope provide high stability**
- **Compact housing with visual status indicators for a simple installation**
- **Three heading data output ports: two IEC/NMEA ports, one AD-10 port**
- **NMEA output format selectable between standard NMEA0183/IEC 61162-1 or NMEA0183 High Speed (HS)/IEC 61162-2**

The FURUNO PG-500 is an inexpensive magnetic heading sensor for pleasure crafts and coastal fishing boats. This compact and waterproof sensor offers high accuracy and stable readout of the ship's heading.

The PG-500 consists of a fluxgate sensor, solid-state rate gyroscope, processor and serial data interfaces. The sensor detects the heading relative to the magnetic north as induced within the fluxgate coils by terrestrial magnetism. The processor monitors the Coriolis force output by the solid-state rate gyroscope and stabilizes the compass heading.

Unlike an ordinary fluxgate that only outputs sine/cosine data, the PG-500 outputs the heading data in the format of IEC 61162, NMEA 0183 or FURUNO AD-10 format.

The PG-500 can provide True Heading by using its correction facilities for magnetic deviation and variation. Deviation (errors mainly caused by shipboard environment) can be automatically corrected by running the boat over full 360 degrees. Variation (errors subject to geographical location) can also be automatically corrected when interfaced with a GPS navigator.

Catalogue No. M-1527

The future today with FURUNO's electronics technology.

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SPECIFICATIONS OF PG-500

1. **Accuracy**
   ±1.0°
2. **Correction**
   Deviation: Automatic by running the boat over 360°
   Variation: Automatic through GP-32, GP-1850W, etc.
3. **Freedom of tilt**
   ±35°
4. **Angular velocity**
   25°/s max.
5. **Output rate**
   IEC 61162, NMEA 0183:
   selectable from 25, 100, 200 ms, 1 s
   AD-10: Up to 25 ms
6. **Interface** (IEC 61162-1/61162-2*, NMEA0183, AD-10)
   Output: HDG, HDT, HDM
   Input: VTG (SOG, COG), RMC
   (* output only)

ENVIRONMENT (IEC 60945 testing)

Temperature:	-15° to +55°C
Waterproofing:	IPX5 (IEC 60529), CFR-46 (USCG standard)

POWER SUPPLY

12 - 24 VDC, 2 W

Note: This PG-500 heading sensor utilizes the earth's magnetism. Therefore, steel-hull installations could be problematic due to residual magnetism. An SC-60/120 GPS Compass may be required.

EQUIPMENT LIST

Standard

1. Heading Sensor PG-500	1 unit
2. Interface Cable (with 6p-6p connectors) MJ-A6SPF0007-100, 10 m	1 pc
3. Installation Materials (including power/interface cable: MJ-A7SPF0009-020 with 7p-7p connectors, 2 m)	

Option

Interface Cable

For IEC 61162, NMEA0183:
- MJ-A7SPF0006-100 with 7p-7p connectors, 10 m
- MJ-A7SPF/SRMD-100 with 7p-7p connectors, 10 m
- MJ-A6SPF0003-050* with 6p connector, 5 m
  (* also available for AD-10 format)

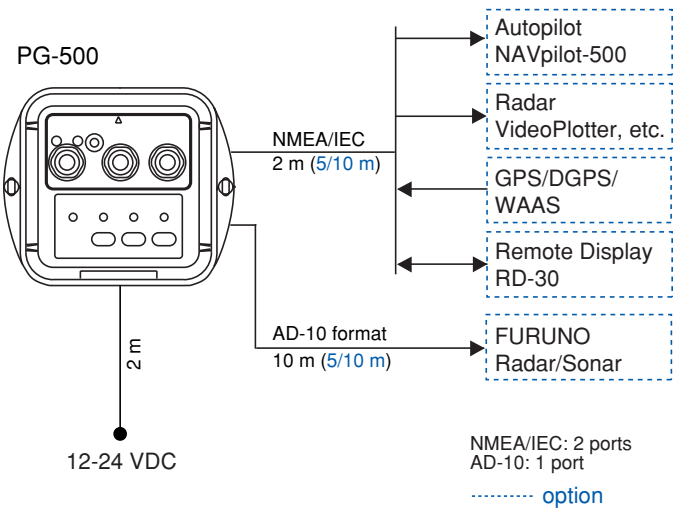
For AD-10:
- MJ-A6SPF0007-100 with 6p-6p connectors, 10 m

Self-learning, Adaptive Autopilot

NAVpilot™ 500

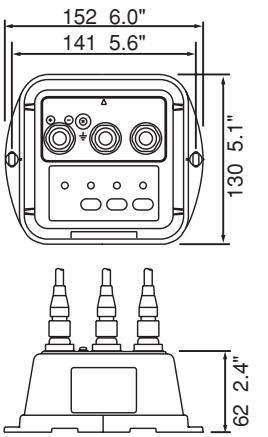
The PG-500 comes as the standard compass for the NAVpilot-500.

INTERCONNECTION DIAGRAM



DIMENSIONS

0.3 kg 0.7 lb



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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03075Y Printed in Japan