FURUNO

Transmitting Heading Device with enhanced stability by a solid-state rate gyroscope

PRECISION FLUXGATE COMPASS

Model PG-500

- **Inexpensive heading sensor with the highest accuracy and stability in this class of equipment**
- **Automatic correction for local magnetic variation with an appropriate GPS navigator or manual correction with an optional remote display RD-33**
- **High stability by a solid-state rate gyroscope**
- **Compact waterproof housing with visual status indicators for a simple installation**
- **Three heading data output ports: two IEC/NMEA ports, one AD-10 port**
- **High speed heading data output in IEC 61162-2 format**



The FURUNO PG-500 is an inexpensive magnetic heading sensor for pleasure craft and coastal fishing boats.

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 swinging the boat. Variation (errors subject to geographical location) can also be automatically corrected when interfaced with a GPS navigator. Correction for variation can manually be entered and indicated when an optional remote display RD-33 is connected.

SPECIFICATIONS OF PG-500

1. Accuracy
   ±1.0° (excluding magnetic anomalies)
2. Correction
   Deviation: Automatic by swinging the boat
   Variation: Automatic through GP-32/GP-33 or manual with RD-33.
3. Roll and Pitch ±35°
4. Follow-up 30°/s
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*, NMEA 0183, AD-10)
   Output: HDT (True heading by compensating compass heading for magnetic deviation and variation)
   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, 0.12 - 0.03 A

EQUIPMENT LIST

Standard

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

Option

Interface Cable

For IEC 61162, NMEA 0183:
- 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

■ The PG-500 is subject tomagnetic anomalies, such asmagnetic deviation due tosteel hull, onboard cranes,nearby huge ships, marinecables, etc. as well as thelocal magnetic variation.



Remote Display RD-33

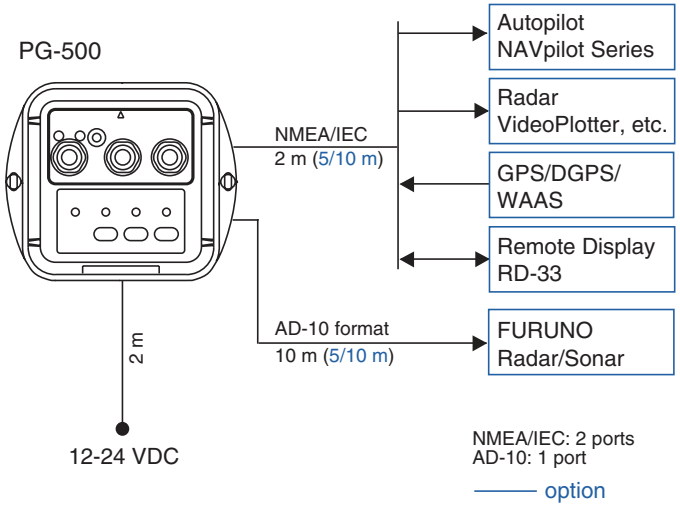
Self-learning, Adaptive Autopilot

NAVpilot™ Series



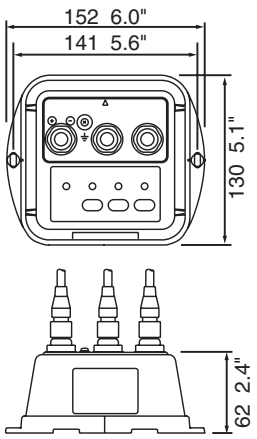
The PG-500 is an excellent compass to use with the NAVpilot Series.

INTERCONNECTION DIAGRAM



DIMENSIONS

0.3 kg 0.7 lb



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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

FURUNO ELECTRIC CO., LTD.
www.furuno.com

Find your local contact point

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