



Heading & Position Reference with Dual Antenna GPS

HPR-360



Description:

The HPR-360 is designed for applications where accurate heading is required, but a magnetic compass is infeasible. This sensor is equipped with a dual GPS antenna system that provides GPS true north heading data even when the unit is not in motion. The GPS data also gives unit position (latitude and longitude). The serial interface is highly configurable and provides access to almost all operational parameters. An antenna spacing of 0.500 meters ± 5 mm is required. The “fore” antenna is placed $\frac{1}{2}$ meter ahead of the “aft” antenna on a line parallel to the x axis of the sensor package

- GPS Heading Reference
- Latitude & Longitude Output
- 10 Hz update Rate
- Low Cost
- Rugged, High Reliability
- Vibration Resistant
- RS-232 Serial Output
- Two Year Limited Warranty
- Engineering Support

Applications:

This sensor is most useful in applications where strong magnetic fields make heading data from a fluxgate magnetometer unreliable. This sensor also provides accurate Heading data when the unit is stopped.



Watson Industries, Inc.

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HPR-360 Specifications

Heading

Range:	0° - 360°	
Resolution:	0.02°	Binary mode (14 bit)
Accuracy: Static	0.5°	Using GPS (0.5 m antenna spacing)

GPS Positioning

Range: Latitude	±90°	
Range: Longitude	±180°	
Resolution: Latitude, Longitude	0.0000013°	Binary mode (28 bit)
Accuracy: Latitude, Longitude	±0.6m (with DGPS)	±2.5m (without DGPS)

Environmental

Temperature: Operating	-30°C to +70°C	
Temperature: Storage	-40°C to +85°C	
Vibration: Operating	5g rms	20 Hz to 2 kHz
Vibration: Survival	10g rms	20 Hz to 2 kHz
Shock: Survival	500g	10ms ½ sine wave

Electrical

Frame Rate	284.44 Hz	Maximum
Startup Time: Data	5 sec	
† Startup Time: Satellite acquisition	5 min	Typical
Input Power:	10 to 35VDC	4.8 W
Input Current:	400mA @ 12VDC	200mA @ 24VDC
Digital Output:	RS-232	

Physical

Size: Including Mounting Flanges	3.24"W x 5.78"L x 3.50"H	8.2 x 14.7 x 8.9 (cm)
Weight:	21.9oz (1.4lb)	620 (0.6Kg)
Connection: RS-232	9 pin female "D" subminiature	
Connection: Power /Analog Output	9 pin male "D" subminiature	
Connection: Antenna	SMA (2)	Antenna Cable Length: 3.0m

† Acquisition time for GPS units is typical for the contiguous United States. Acquisition time may differ due to interference in your geographic area.

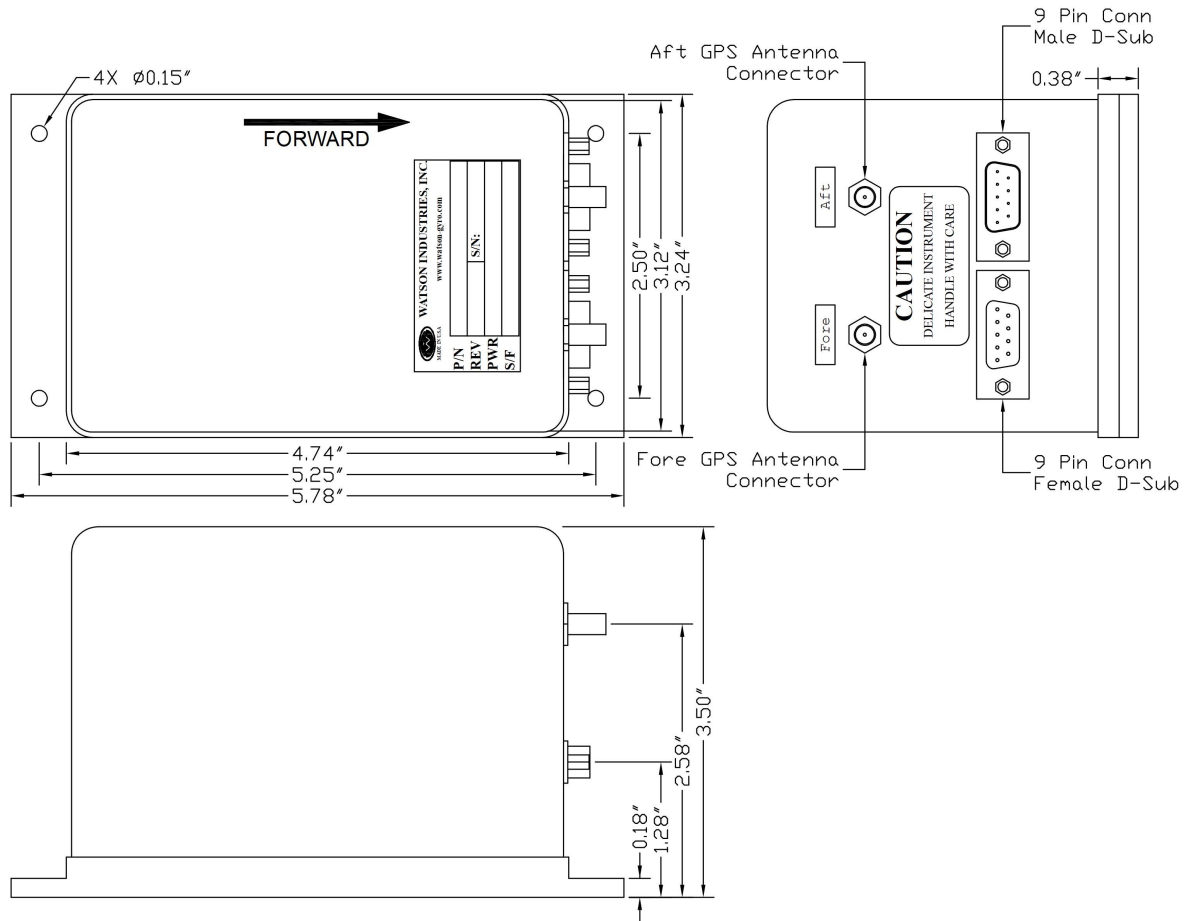
- Specifications are subject to change without notice.
- This product may be subject to export restrictions. Please consult the factory.



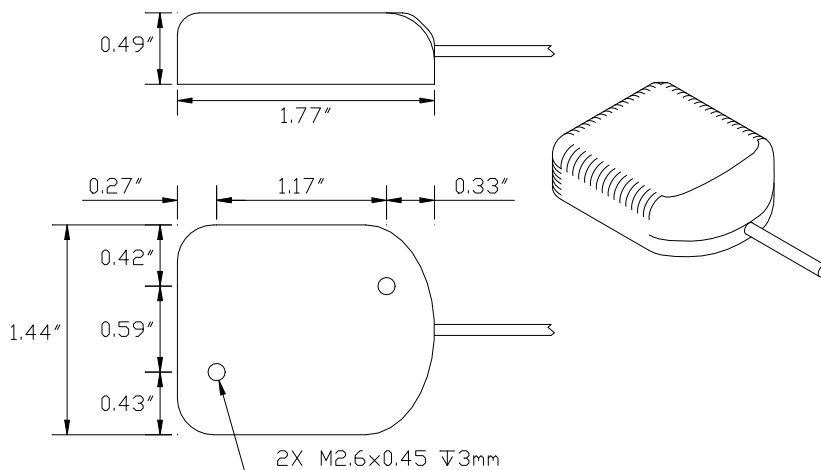
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Dimensions: HPR-360/326



GPS Antenna



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