



# 930580 Compass Sensor

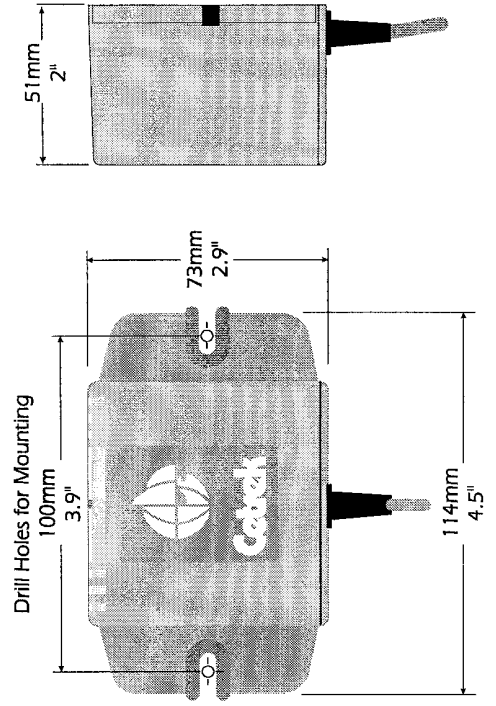
## SPECIFICATIONS

Supply:	8 to 16 VDC at 30 mA max.
Current Consumption:	15mA
Cable:	14 metre long (46ft), 5 way screened.
Output:	Sine and cosine (0.5 - 4.9 VDC) Reference (2.5 VDC)
Temperature:	Operating -20° - +80° C Storage: -25° - +100° C
Protection against:	Reverse polarity Integral overload Thermal overload Short Circuit Water ingress.



**This is a sealed unit and is not repairable.**

## DIMENSIONS



A Company Committed to Quality.

Cetrek Ltd  
Certificate No. 05972  
to EN ISO 9001:1994

Document Reference:  
805800  
Issue 04  
June 1998

**CE** This product complies with  
EMC Directive 89/336/EEC

## INSTALLATION



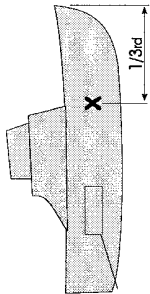
### Position the 580 away from sources of Magnetic Interference:

- At least 3m (9ft) clearance from: speakers and Radar Magnetrons.
- At least 1m(3ft) clearance from: battery chargers, ammeters, power cables, engines, generators, refrigerators, air conditioners, DC motors and other similar equipment.
- Avoid the galley or any area where magnetic material such as tools, cans and the like are stowed.

### Finding a suitable Location on Wooden or GRP vessels

On a vertical surface, as near as possible to the centre of pitch, roll and yaw, which is the most stable position on the vessel.

Avoid a flybridge or forward in the bow.



Using a magnetic hand compass, check the area 0.3m (1ft) in every direction from the proposed location for deviation. A deviation greater than 20° will likely cause problems.

Turn on electrical equipment and check for a change in heading on your magnetic head compass. If a change is observed this is not a suitable location.

### Finding a suitable Location on Steel vessels

For steel vessels, a Pick-off coil system is recommended, but a 580 can usually be sited with reasonable results.

The most suitable place for mounting the Compass Sensor on a steel vessel will probably be on a non-magnetic mast, or in a wooden wheelhouse.

To find the area of least deviation up a mast, move a magnetic hand compass slowly up the mast. A small deviation is acceptable because

it can be corrected electronically. Mount the compass on the mast, as low as possible.

### Connections to a 930609/619 Pilot Computer

Insert the cable connector to PL8.

Pin 1	Ground (0V)	Black
Pin 2	Reference	White
Pin 3	Cosine	Blue
Pin 4	Sine	Green
Pin 5	Power +8V	Red
Chassis	Screen around cable	

Attach the cable to the Chassis Grounding Strip, using the cable ties supplied. Ensure that the Screen around the cable is touching the Chassis Grounding Strip.

### Connections to the Compass Interface 930541

Wire the 930580 compass sensor to the connector marked "sensor".

+8V	Power +8V	Red
SIN	Sine	Green
COS	Cosine	Blue
REF	Reference	White
GND	Ground (0V)	Black
SCREEN	Screen around cable	

Attach the cable using the cable clamp, ensuring that the screen around the cable is touching the Chassis Grounding Strip.

### See your pilot or instrument User's Guide for instructions on :

- electronically aligning the compass sensor with the bow of the vessel.
- the Auto Deviation Correction Routine for the compass.

See the appropriate User's Guide

To improve performance of the autopilot even further, particularly on vessels that are difficult to steer, the optional Rate sensor 930581 can be fitted to compliment the 930580 compass. Ask your dealer for details.

