

FERRYBOX SENSOR INTERFACE STANDARD (FSIS™)

1. MECHANICAL

The mechanical shape and size are shown in the drawing below, the sensor enclosure drawn is typically used to mount electronics and a flow cell will be mounted on the top cover as illustrated in Figure 1 below.

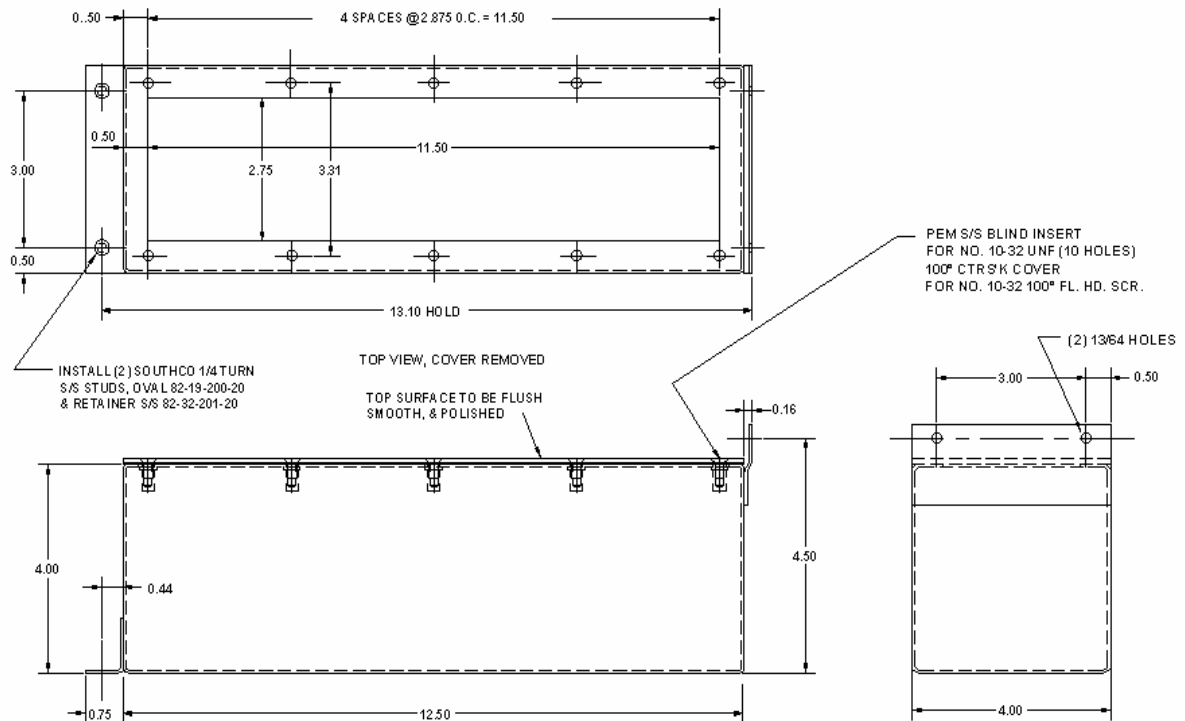


Figure 1. Mechanical drawing of FSIS Sensor Module. All drawing dimensions are in inches.

The sensor module can be mounted horizontally as illustrated in the drawing above, with the ¼ turn screws to the left or vertically with the ¼ turn screws at the top.

Plumbing connections are Teflon ¼ inch tubing and compression fittings or quick disconnects, plumbing connections come from the left of the package convenient for connection to the distribution manifold. Electrical connections are mounted on the right side of each modules cover plate. Connectors are round series Amphenol C16 bulkhead connectors and mating connectors utilize a right angled cover to maintain a low profile

2. ELECTRICAL

- ◆ Supply Voltage.12Volt
- ◆ Available current Application dependent
- ◆ For **shipboard** applications power source will be a 300 Watt computer power supply.
- ◆ For **buoy** applications sensors will be powered down between measurements.

Power and communication connector

- Bulkhead connector for power and communication:
Amphenol C-16 7 pole receptacle p.n. T3105-001
- Mating connector
Amphenol C-16 7 pole pins p.n. T3105-081

Pin 1	+12 Volts
2	RS232 TX
3	RS232 RX
4	RS232 Common
7	12 Volt return



Figure 2. Photograph illustrates a sensor module plumbed into the distribution manifold in the SeaKeeper 1000.

3. DATA COMMUNICATIONS

- ◆ Communication will be RS232C, ASCII ideally sampling will be prompted and data will be available at rates up to 1 Hz.
- ◆ Communication protocol will be 9600 baud, 8 data bits, 1 stop bit, no parity. For larger volume data producers (e.g. spectral instruments) higher standard data rates are supported.

4. PLUMBING

- ◆ Available space is consistent with a 250 ml flow through cell; the water supply can vary between 12 liters per minute and 2.5 liters per minute depending upon the number of sensors mounted in the system. Flow rates will be approximately halved for situations where a SunPumps SDS-T-128 submerged pump is used, for example, on piers where a significant lift is required.

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