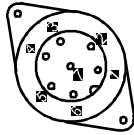


## 1. Power connection

Please refer to picture 'Power connection' in section 6.

## 2. RS-232 connector on front panel (pinout and cable connections)



Pin	Signal	D-Sub 9 female	D-Sub 25 female
1	TXD1	2 RX	3 RX
2	RXD1	3 TX	2 TX
3	TRANSMIT1		
4	DTR1		
5	RTS1		
6	CTS1		
7	GND	5 GND 4 internal connected to pin 6	7 GND 20 con. to 6 (DTR/DSR)

## 3. Internal sensor connector on the GS\_OVPD board (12 pin)

Pin	Signal	12 Lead Cable (DIN47100)	GeoSIG cable
1	SENS_X_HI	white	white
2	SENS_X_LO	brown	brown
3	SENS_Y_HI	green	green
4	SENS_Y_LO	yellow	yellow
5	SENS_Z_HI	grey	grey
6	SENS_Z_LO	pink	pink
7	S_TEST	blue	blue
8	AGND	red	red
9	V_EXT (+12 volts)	black	black (#1, 0.75mm <sup>2</sup> )
10	AGND	purple	black (#2, 0.75mm <sup>2</sup> )
11	SENS_SWI	grey-pink	black
12	AGND	red-blue	purple

SENS\_SWI is S\_MODE, SENS\_V, V\_REF, or -12V depending on the application (sensor type).  
Please refer as well to the picture 'Sensor connection' in section 6 and section 7 'Sensor shield connection'.

## 4. Internal GPS connection to the 8 Pin Weidmüller connector

### 4.1 Direct GPS connection

The following table shows the connection of the GPS to the internal 8-pin Weidmüller GPS connector using the original cable of the device without extension.

Pin	Signal	Wiring Color
1	TXD1 (outgoing)	blue
2	RXD1 (incoming)	white
3	-	purple
4	-	yellow
5	NMEA, sync	grey
6	Power GPS	red
7	GND	black
8	-	green
-	-	shield



Weidmüller 8p female (direct)

#### 4.2 GPS connection using an extension cable

The following table shows the connection of the Binder 7 pole connector to the original GPS cable. It is only of importance if an additional extension cable is used. Otherwise, the GPS is connected directly to the GNC-internal Weidmüller connector with its original cable (no Binder 7 pole is used).

Pin	Signal	Wiring Color
1	TXD1 (outgoing)	blue
2	RXD1 (incoming)	white
3	- not used	purple
4	- not used	yellow
5	NMEA, sync	grey
6	Power GPS	red
7	GND	black



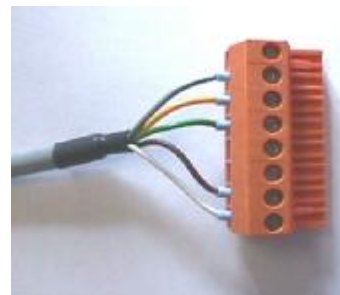
Binder 7p male connected to GPS

The extension cable has a Binder 7 pole female connector on one side and a Weidmüller 8 pole female connector on the GNC-side. The following table and pictures show the extension cable wiring.

Pin Binder	Pin Weidm	Signal	Wiring Color
1	1	TXD1 (outgoing)	white
2	2	RXD1 (incoming)	brown
3	3	-	-
4	4	-	-
5	5	NMEA, sync	green
6	6	Power GPS	yellow
7	7	GND	grey
8	8	-	-



GPS extension cable: Binder 7p female



Weidmüller 8p female (extension)

#### 5. Alarm connection

The following table shows the signal description of the alarm connector (Weidmüller 8p female). Please refer as well to the picture 'GPS and alarm connection' in section 6.

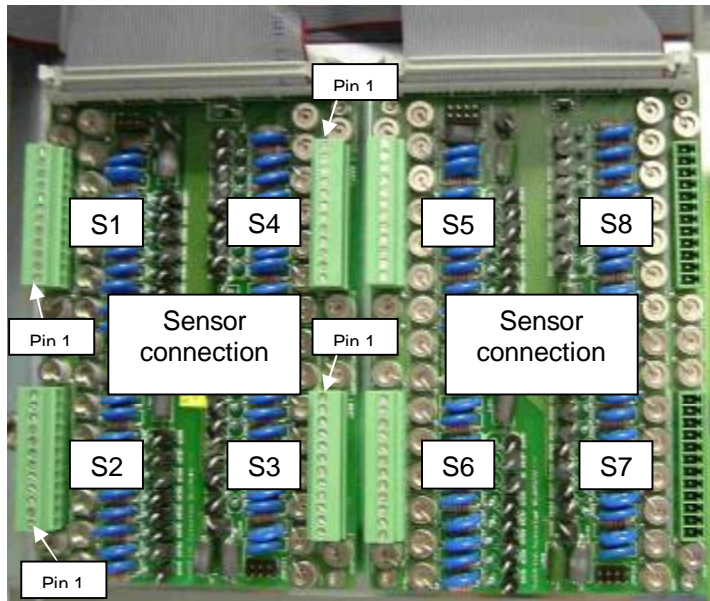
Pin	Signal
1	Alarm 1, relay contact 1
2	Alarm 1, relay contact 2
3	Alarm 2, relay contact 1
4	Alarm 2, relay contact 2
5	Alarm 3, relay contact 1
6	Alarm 3, relay contact 2
7	- not used

**Remarks:**

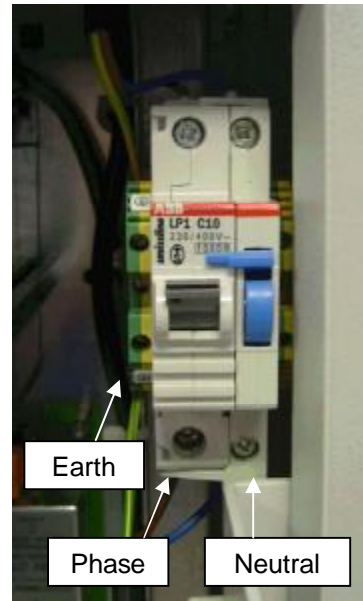
- Relays are normally open in the standard instrument
- If a GPS is used alarm 3 is not available

8 - not used

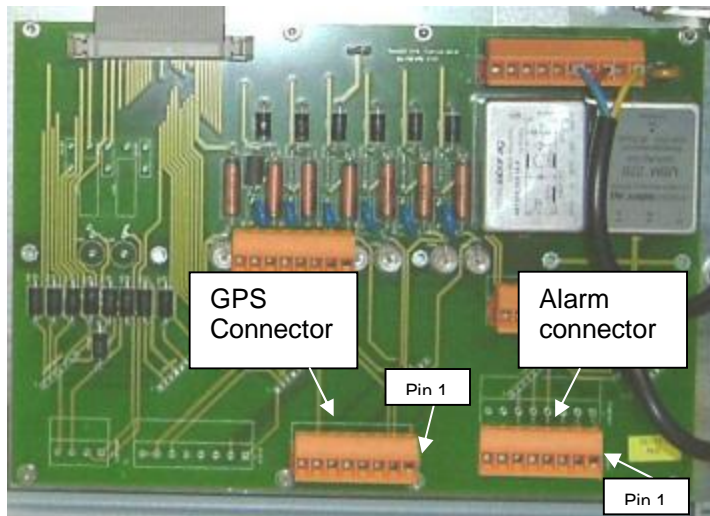
## 6. GNC connector locations



Sensor connection



Power connection



GPS and alarm connection

## 7. Sensor shield connection

The following sequence of pictures shows how to connect the shield of the sensor cable correctly to the cable inlet of the sensor. The shield is connected to the GNC cable inlet on the other end of the cable in the same way. Since the procedure is exactly the same it is not shown here.

The cable inlets are connected electrically to the housing of the sensor / instrument which means that the cable shield is connected electrically to the corresponding housing.

If a connector is used a similar cable inlet is provided as part of the connector which allows the shield to be connected in the same way.



The cable shield is cut and folded backwards around the metallic part of the cable inlet as shown in above pictures.



Then, the rubber part including the metal piece and the shield is moved into the fixed part of the inlet and the nut is screwed. A conduction test makes sure that the shield is connected electrically to the inlet and the housing.