

# **EFIS Horizon AHRS/Air Data Computer and Magnetometer Connector Definitions**

Nov 3, 2003  
Rev B

Grand Rapids Technologies, Inc.

## **Revision History**

11/3/03 – Renamed magnetometer input pins on AHRS to A,B,C to correspond to naming convention on magnetometer and changed the connections to correspond to the production magnetometer board.

## AHRS Connector

Mating Connector: 25-pin Male D-sub (AHRS has 25-pin Female D-sub)

Pin	Function
1	Serial Out 1
2	Serial Out 1
3	Serial Out 2
4	Serial Out 2
5	Serial In 1
6	Serial In 2
7	Magnetometer Z Input
8	Magnetometer Y Input
9	Magnetometer X Input
10	Outside Air Temperature Input
11	Supply B Status Output -- Power Input B is output on this pin through a 1 k ohm resistor.**
12	Supply C Status Output -- Power Input C is output on this pin through a 1 k ohm resistor.**
13	Ground
14	Magnetometer Gnd
15	Not Used
16	Not Used
17	Built-In-Test Status Output (Open/Ground) Ground state has 1k ohm resistance to ground. Ground = Operation Normal
18	Magnetometer Control Output
19	Reserved – Do Not Connect
20	Not Used
21	Supply A Status Output – Power Input A is output on this pin through a 1 k ohm resistor.**
22	Magnetometer Power Out
23	Aircraft Power Input A
24	Aircraft Power Input B
25	Aircraft Power Input C

\* Power Inputs A,B, and C are identical, diode-isolated inputs.

\*\* Supply Status Outputs allow monitoring of power provided to the AHRS, allowing for detection of loss of a source of input power to the AHRS. These outputs can be used to illuminate an LED for visual monitoring to allow detection of loss of redundant power sources.

### **Magnetometer Connector**

Mating Connector: 9-pin Male D-sub (Magnetometer has 9-pin female D-sub)

All electrical connections are made only to the AHRS/Air Data Computer.

Pin	Function
1	Magnetometer Y Output
2	Magnetometer Z Output
3	Magnetometer X Output
4	Power (Power to be supplied only by AHRS Magnetometer Power Output)
5	Ground
6	Control
7	No Connection
8	No Connection
9	No Connection