



Differential Voltage Relay

Differential Voltage (Flume) Relay to direct Internal / External Power to a Sensor

The DataHog2 usually supplies a regulated 5.00VDC supply to Pin 1 of the sensor sockets for voltage, temperature and windvane channels. For sensors which require a power supply greater than 5V, a relay may be fitted to enable this.

The external power supply usually 12V but must not be more than 15VDC - is connected to the DataHog2 via Pin 4 of the RS232 socket. The relay powers up the sensor using this 12V supply each time that channel is measured the sensor is not powered continuously. For details on sensor power on / warm up time, please see the datasheet DataHog2 Sensor Excitation Times.

If the external power supply is greater than the logger's internal batteries (which is approximately 9V for new batteries), it will also provide power for all other DataHog2 functions. If the external power supply falls below the voltage of the logger's internal batteries, then these batteries will take over the logger's main functions, and will also power the sensor attached to the relay with the standard 5.00 VDC excitation.

The special dataleads ACC1A-DC (non waterproof) and ACC1A-EXT-DC (waterproof) are designed to allow an external power supply to be connected to the logger's RS232 socket, at the same time as a PC RS232 connection. This is important to provide a continuous power supply to both the logger and the sensors during PC communications.

WIRING DETAILS

For a Differential Voltage (Flume) DataHog2 socket

Pin 1	Positive power to sensor from internal / external supply
Pin 2	Not connected
Pin 3	Negative sensor output
Pin 4	Positive sensor output
Pin 5	Ground and cable screen