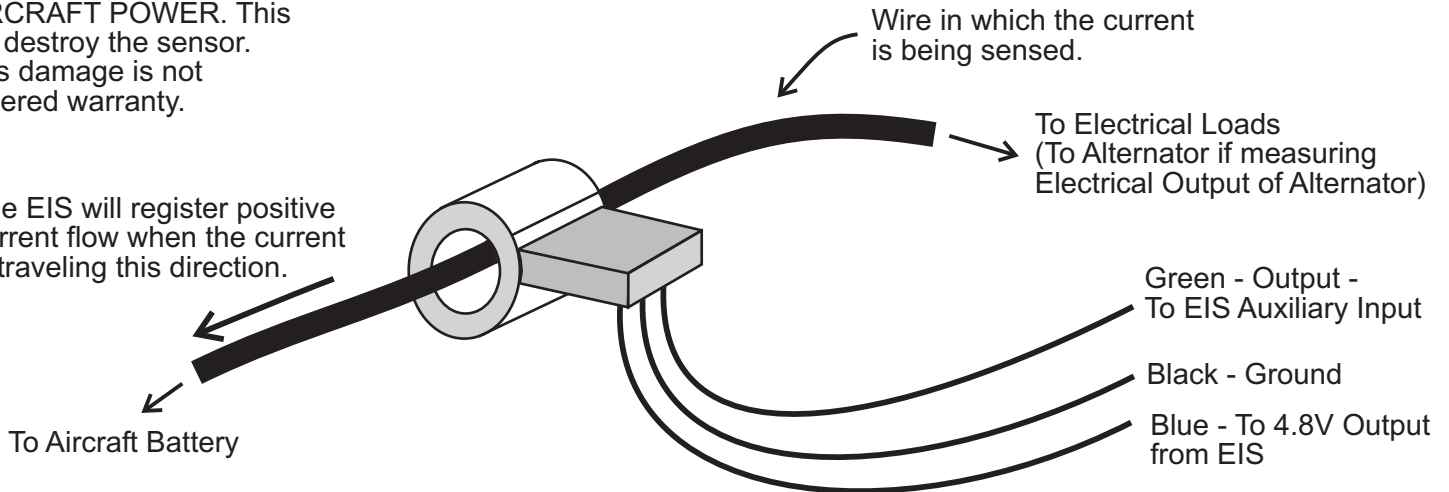


# CAUTION

DO NOT CONNECT THE BLUE WIRE TO AIRCRAFT POWER. This will destroy the sensor. This damage is not covered warranty.

The EIS will register positive current flow when the current is traveling this direction.



The Hall Effect current sensor measures the current flow in the wire that passes through it, without any electrical connection to this wire. Two locations for mounting the sensor are commonly used.

**Sensing Battery Current:** Mounting the sensor such that the battery positive cable is passing through the sensor will show the amount of charge or discharge of the battery. A negative current indication indicates the battery is being discharged. A positive indication indicates the rate of charge. (The sensor may also be installed in the ground lead, with the arrow on the sensor pointing away from the battery.) Note that a battery voltage of less than 12V also indicates the battery is being discharged.)

**Sensing Alternator Output:** Mounting the sensor such that the alternator output cable passes through the sensor will show the amount of current being supplied by the alternator. This will always result in a positive current flow, since current will normally not flow backward into the alternator. This technique will show excessive current draw in the aircraft that might not result in discharging of the battery, depending on the alternator capacity. This is the preferred method in many installations.

The sensor may be mounted on the engine side of the firewall, or the cabin side. Accuracy is slight enhanced when the sensor is mounted in the cabin, as temperature extremes are minimized.

On the EIS configuration set pages:

- Set the Forward/Reverse (+/-) for this aux input to Forward (+)
- Set the Decimal/Integer (D/I) to Integer (I) (If the instrument includes this selection.)

For sensing current in the -50 to +50 Amp range, an auxiliary input which does not include a decimal point in the display is the best choice, as the displayed value will have a resolution of 1 Amp.

For Sensing -50 to +50 Amps:

- Set the Auxiliary Scale Factor to 114.
- Set the Auxiliary Offset to 217.

For Sensing -10.0 to +10.0 Amps:

- Set the Auxiliary Scale Factor to 228.
- Set the Auxiliary Offset to 435.
- Set the Decimal/Integer (D/I) to Decimal (D) (If the instrument includes this selection. Otherwise, use an auxiliary input which includes a decimal point.)
- Loop the wire whose current is being sensed through the sensor 5 times.

## Notes

- To display negative values an/or to enter auxiliary offset values greater than 255 into the EIS, a software version of 45 or greater is required for the Model 4000/6000/9000. For software versions prior to 45, the -50 to +50 Amp range may be used, and only positive currents may be sensed. Alternatively, The aux offset may be set to 157 for the 100 Amp range, or 77 for the 50 Amp range. This will result in 0 current being displayed as 100, positive current as values greater than 100 (for example, 125 would correspond to +25 Amps), and negative values as values below 100 (for example, 75 would correspond to -25 Amps.)
- The Auxiliary Offset may be adjusted if necessary to zero the reading by adjusting it up or down by 2 counts a time. (The aux offset value must remain an odd number, and only a small change should be required.)

# 50 Amp Hall Effect Current Sensor