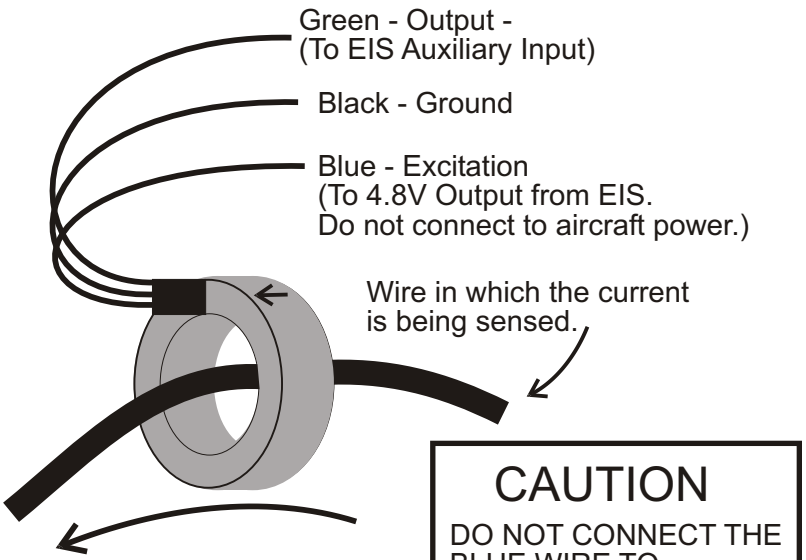
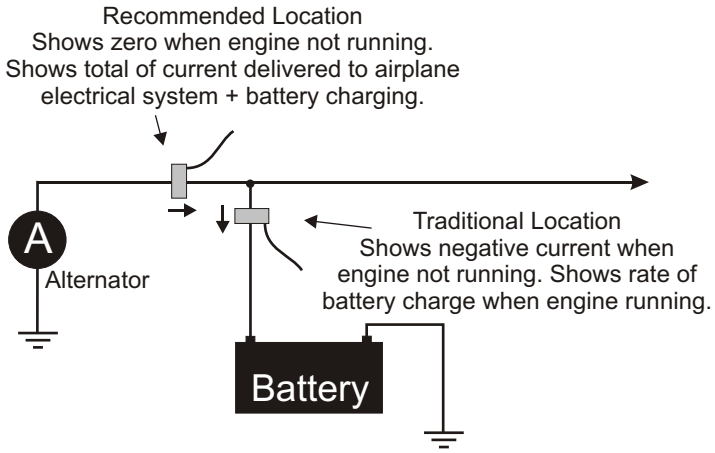


CAUTION

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



The recommended location shows the current output from the alternator. Since the battery typically recharges rapidly after startup, this location will show the current being consumed the airplane's electrical system. An abnormally high reading indicates the battery was significantly discharged, or something in the airplane is consuming an unusually high amount of electrical current.

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.)

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.

The sensor may be mounted on the engine side of the firewall, or the cabin side.

For sensing current in the -100 to 100 Amp range, or -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 -100 to +100 Amps: (See note 1 below.)

Set the Forward/Reverse Sensing to FORWARD
Set the Auxiliary Scale Factor to 160.
Set the Auxiliary Offset to 287.

For Sensing -50 to +50 Amps: (See note 1 below.)
Set the Forward/Reverse Sensing to FORWARD
Set the Auxiliary Scale Factor to 80.
Set the Auxiliary Offset to 143.
Loop the wire which carries the current being sensed through the sensor so that it passes through it 2 times.

For Sensing -10.0 to +10.0 Amps:

Use the settings for -100 to +100 amps, but loop the wire which carries the current being sensed through the sensor 10 times. The display will indicate 1/10s of an Amp, making this arrangement best suited for an auxiliary input which includes a decimal point.

For Sensing +/- 25.0 or +/- 25 Amps . Use 4 turns of 399 and AuxOff to 721 to display current with 0.1 amp resoultion (you will want a decimal point in the aux display for this). With these settings, the current display may be somewhat noisy (erratic) If you prefer to show the current with a resolution of 1 amp , use and AuxSF of 40, and an offset of 72.

Notes

1. To display negative values an/or to enter auxiliary offset values greater than 256 into the EIS, a software version of 45 or greater is required. 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 87 for the 100 Amp range, or 43 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.)

2. 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, if any.)

Hall Effect Current Sensor

AMP_HE_RevE.cdr