FCS-E1 auto-scaling current sensor *installation & commissioning instructions.*

Tools required:-

Usual electricians hand tools
Digital clamp meter

Info you need :-

Electrical size of fan in watts / Kilowatts

The tools and information to the left of this box are a must for the correct installation of this fan current sensor.
Failure to read & follow these instructions could well result in a call back for you!

Wiring

The FCS-E1 requires an electrical supply to operate, there are 2 ways in which this can be carried out, parasitic supply from the fan wiring (fig.1) or supplied from the same supply as the intelligas unit (fig.2).
These methods are the only 2 recommended by Intelligas, in both cases the relevant regulations in force in the local area must be strictly adhered to.
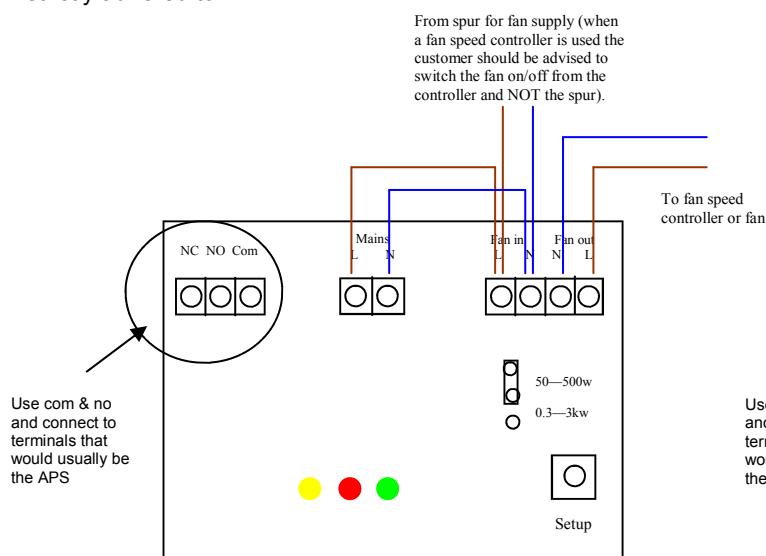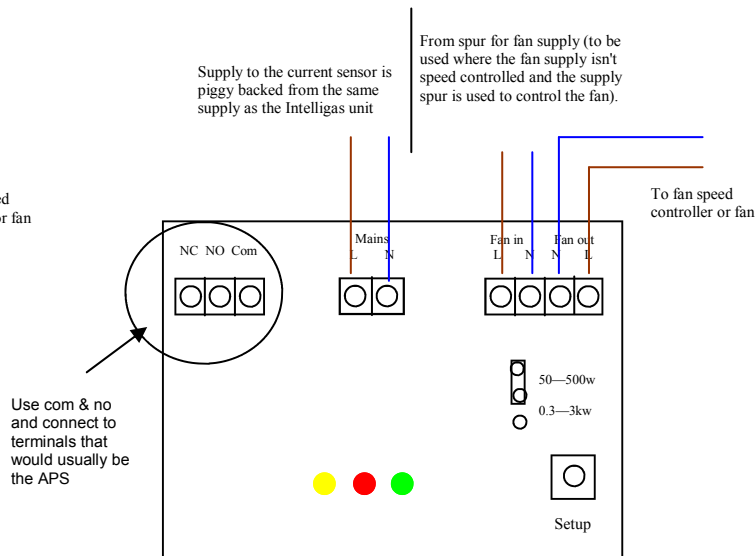

From spur for fan supply (when a fan speed controller is used the customer should be advised to switch the fan on/off from the controller and NOT the spur).

To fan speed controller or fan

NC NO Com

Mains L N

Fan in L N   Fan out N L

50—500w
0.3—3kw

Use com & no and connect to terminals that would usually be the APS

Setup

Fig.1

Supply to the current sensor is piggy backed from the same supply as the Intelligas unit

From spur for fan supply (to be used where the fan supply isn't speed controlled and the supply spur is used to control the fan).

To fan speed controller or fan

NC NO Com

Mains L N

Fan in L N   Fan out N L

50—500w
0.3—3kw

Use com & no and connect to terminals that would usually be the APS

Setup

Fig.2

Commissioning

Before applying power to the unit choose the power scale for your fan. Choose a scale where your fan falls more to the "top" or "middle" of the scale for example if your fan is 350w then choose the 50-500w range as this will make precise commissioning easier.

Don't worry if your fan falls right between the two! If for example your fan is 500w then choose the higher setting, as long as these instructions are followed correctly then this wont cause a problem

Once the electrical installation work has been carried out and checked and the power range chosen then apply power to the unit and fan.

Run the fan at top speed and using a clamp meter take a current reading. Now slowly decrease the fan speed on the controller and watch the fan current. What you are looking for is the point at which the fan draws the most and the least current (make a note of these points, the higher current may be "5" on the scale and the lowest current may be "7"). Just because the fan is at top speed this does not mean it's the highest current draw that it can achieve!

Now press and hold the setup button until all the lights go out and only the red led is illuminated. Adjust the fan speed controller until the highest fan current is reached ("5" in our example) allow 10 seconds for the fan current to stabilise, now press and release the setup button. The amber LED will now illuminate.

Set the fan speed controller to the lowest level ("7" in our example) and again allow 10 seconds for the fan current to stabilise, now again press the setup button.

If you've done everything right then the green LED will flash rapidly for a few seconds while the levels are stored and then the relay will click and the unit is now commissioned.

Thanks for choosing *intelligas!*