ENGINEERING TOMORROW

Operating Guide

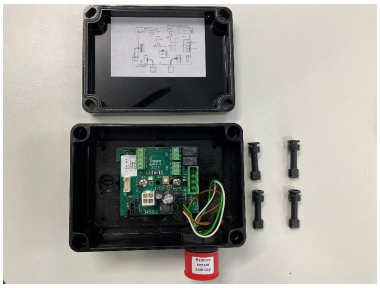
Quick start up of the **DGS Gas Detector**

This quick setup guide details the steps required to ensure the DGS gas sensor is installed securely and to work in all condition.

Removing the lid

Remove the 4 screws that are securing the lid.

Once the 4 screws have been removed, you can access to the gas detector board.

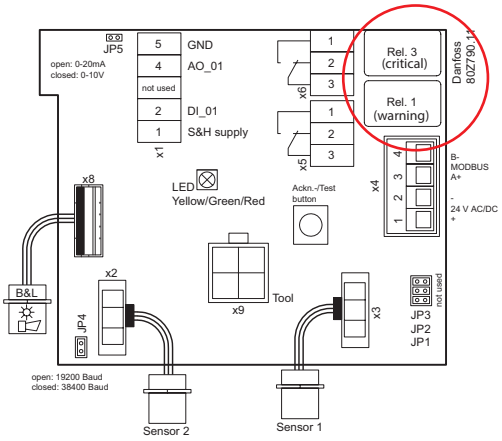


Wiring

On the board you will find:

- 2 relays
- Sensor head connection
- Terminal for power supply
- Terminal for Modbus connection
- Terminal for Analog connection

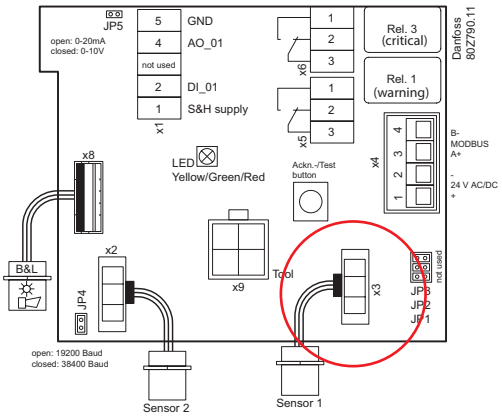
2 relays



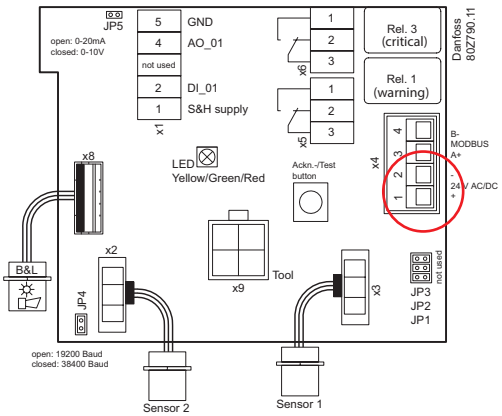
The relays are preconfigured as this:

Status	No alarms	Warning	Critical	No Power
Critical relay	energized	energized	de-energized	de-energized
Warning relay	de-energized	energized	energized	de-energized

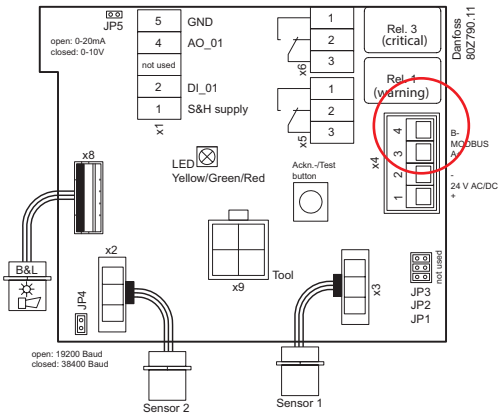
Sensor head connection. The sensor can be replaced in case of failure or end of life of the sensor.

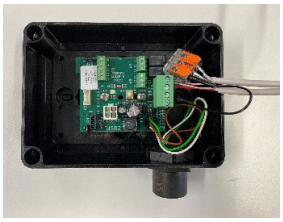


Terminal for the power supply cable X4 1 and 2



If Modbus communication is used, X4 3 and 4 have be wired.



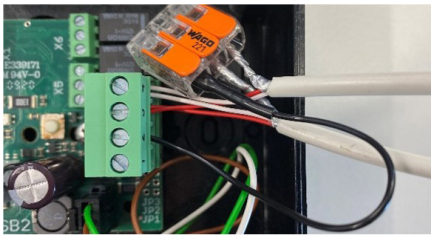


Make sure to not interrupt the shield when connecting A and B.

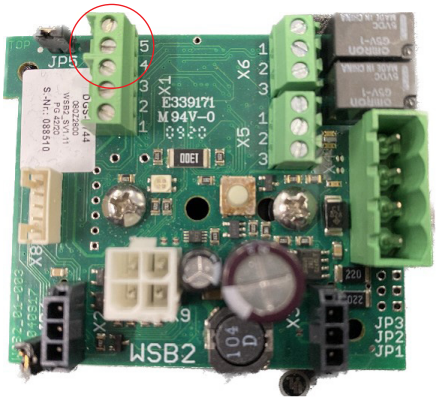
Ground potential difference between nodes of the RS485 network might affect the communication.

For this reason, it is advised to connect a 1 KΩ 5% ¼ W resistor between the shield and the ground (X4.2) of the unit.

If the power supply feeds more than one unit, it is sufficient to connect the resistor on only one of the units.



If the Analog Output is used, X1 4 and 5 have to be wired. The same ground potential for the AO and the connected device is required.

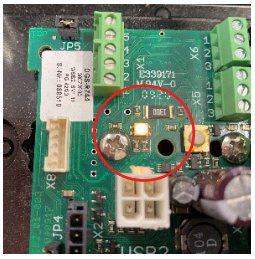


Power up

In order to power the DGS, you have to provide 24Vac/dc to terminal X4, 3 and 4

In order to keep the protection of the housing, you need to use the cable glands that are provided with the gas detector.

Remember to remove the sensor red cap protection, in order to make the sensor correctly operate.



Once the power is provided you will see the yellow LED blinking, that means that the sensor is warning up.

After a couple of minutes, the solid green LED means that the sensor is operating.

Because the DGS sensor is calibrated at the factory side there is no need to make any additional adjustment.

Modbus address setting

In case Modbus connection is used, you need to connect the Hand Held Service Tool to the DGS, in order to set the designed Modbus address to the device. You can see as example in the below video the change from address 1 to address 2 (default address is 95).

Refer the video for the Modbus address setting.